



# Administrator Guide

MSDSpro manual for MSDS managers & supervisors

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# Installation and Configuration

## System Requirements

MSDSpro is designed to function properly on many different computer hardware and operating system configurations.

MSDSpro system minimum requirements:

■ **MSDSpro Workstation:**

Windows®  
Pentium 133  
32MB RAM (48MB RAM for Windows® NT)  
Hard Drive with 70MB free  
VGA monitor (12")  
CD ROM

■ **MSDSpro PlusWeb Server Workstation:**

The same as MSDSpro Workstation above, with:

TCP/IP networking correctly configured  
48MB RAM

■ **MSDSpro Enterprise Client:**

Windows®  
Pentium 133  
32MB RAM (48MB RAM for Windows® NT)  
Hard Drive with 7MB free  
VGA monitor (12")  
Network adapter  
TCP/IP or IPX/SPX networking correctly configured

■ **MSDSpro Enterprise Server:**

The same as MSDSpro PlusWeb Server Workstation above, with:

64MB RAM



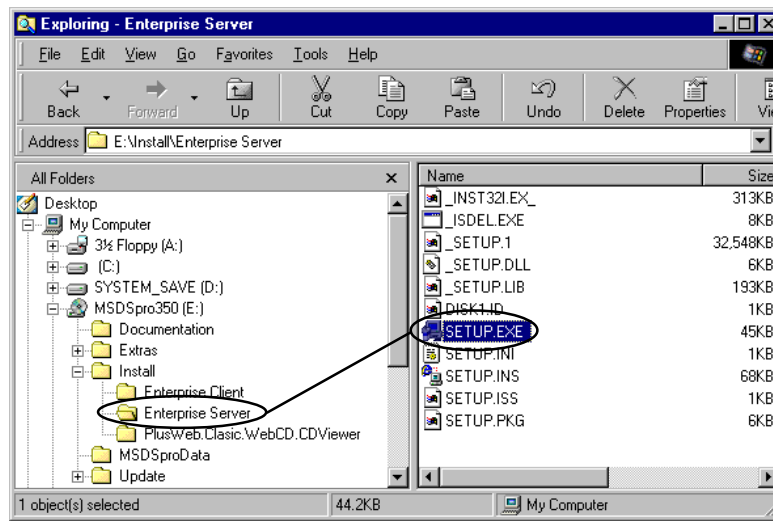
## Installation of MSDSpro 4D Server

In an MSDSpro Enterprise installation, MSDSpro 4D Server must be installed before MSDSpro Client workstations will be able to access the MSDSpro Enterprise system. After installing MSDSpro 4D Server, MSDSpro 4D Clients should be installed on workstations that will need to access the MSDSpro Enterprise system.

Be sure that you have at least the minimum amount of required hard drive space to install MSDSpro (see *System Requirements*.)

To install MSDSpro 4D Server, follow these steps:

1. Insert the MSDSpro Installer CD into your CD-ROM drive
2. Open the *Install/Enterprise Server* folder on the CD, as shown below in Explorer



3. Double-click Setup.exe to begin the installation of MSDSpro 4D Server

The default installation location is *C:\Program Files\MSDSpro Server*.

4. Complete the installation
5. Launch MSDSpro 4D Server

See *Launching MSDSpro 4D Server* in this section.

## Installation of MSDSpro 4D Client

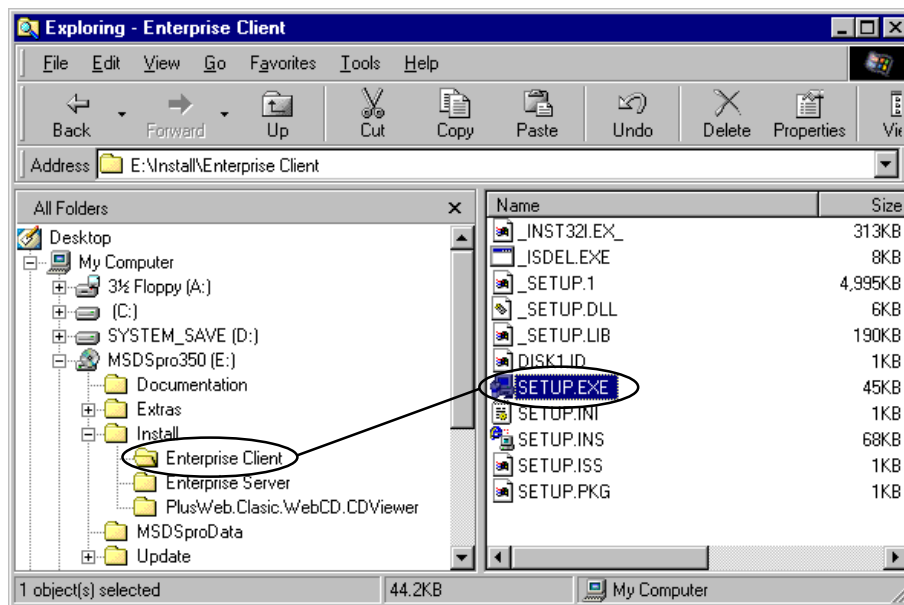
In an MSDSpro Enterprise installation, MSDSpro 4D Clients must be installed on computer workstations that need access to MSDSpro Enterprise after installing the MSDSpro 4D Server.

Be sure that you have at least the minimum amount of required hard drive space to install MSDSpro (see *System Requirements*.)

**NOTE:** *MSDSpro 4D Client should not normally be installed on the same computer that runs the MSDSpro Server application. Please contact MSDSpro Technical Support if this is required.*

To install MSDSpro 4D Client, follow these steps:

1. Insert the MSDSpro Installer CD into your CD-ROM drive
2. Open the *Install/Enterprise Client* folder on the CD, as shown below in Explorer



3. Double-click Setup.exe to begin the installation of MSDSpro 4D Client

The default installation location is *C:\Program Files\MSDSpro Client*.

4. Complete the installation
5. Launch MSDSpro 4D Client

See *Launching MSDSpro Client* in this section.

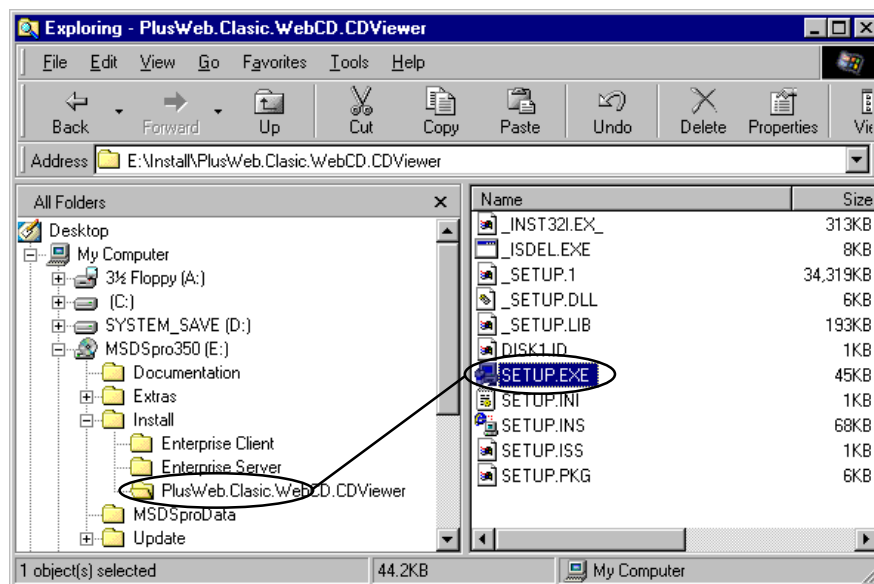
## Installation of MSDSpro Standalone Applications

MSDSpro standalone applications consist of MSDSpro PlusWeb, MSDSpro Classic, MSDSpro CD Viewer, and MSDSpro WebCD.

Be sure that you have at least the minimum amount of required hard drive space to install MSDSpro (see *System Requirements*.)

To install MSDSpro standalone applications, follow these steps:

1. Insert the MSDSpro Installer CD into your CD-ROM drive as shown below in Explorer
2. Locate the `\\Install\\PlusWeb.Clastic.WebCD.CDViewer` folder



3. Double-click **Setup.exe** to begin the installation of MSDSpro

The default installation location is `C:\\Program Files\\MSDSpro`

4. Complete the installation
5. Launch MSDSpro

See *Launching MSDSpro* in this section.

## Launching MSDSpro Enterprise

MSDSpro Enterprise is version of MSDSpro designed for administration over a computer network. MSDSpro Enterprise is a Client/Server relational database system (RDBMS), and consists of two applications which work together:

- **MSDSpro 4D Server**
- **MSDSpro 4D Client**

MSDSpro 4D Server contains the MSDSpro database and Web Server, and allows users to access the MSDSpro database. The server should always be available for use.

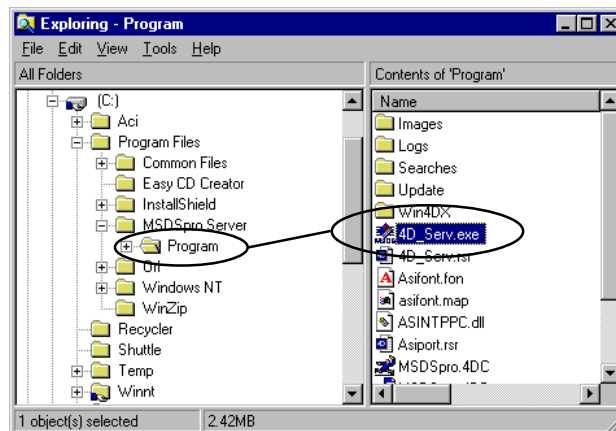
The client workstations contain the MSDSpro 4D Client application, which connect to the MSDSpro 4D Server to use the system.

## Launching MSDSpro 4D Server

**WARNING:** *Windows® NT must be configured for optimal performance before launching MSDSpro 4D Server for the first time. See Configuring Windows® NT for MSDSpro 4D Server later in this section for more information.*

The MSDSpro 4D Server must be launched first, which will then allow Web users and MSDSpro 4D Clients to connect and use the system.

MSDSpro 4D Server must be installed on the server computer. The application can be launched by selecting **MSDSpro Server / 4D\_SERV** from the *Start Menu*, or by choosing the default installation location of *C:\Program Files\MSDSpro Server\Program\4D\_Serv.exe* as shown below in Explorer:



## Launching MSDSpro 4D Server (Cont'd)

To launch MSDSpro 4D Server:

**1. Select *MSDSpro Server / 4D\_Serv* from the *Start menu***

The first time you launch MSDSpro 4D Server, you will be required to enter product registration information (as supplied on the Registration Card which was included in the initial shipment.) You must enter the information exactly as shown on your Registration Card (using capital letters and zero's):

- A. Enter the Name exactly as shown on your Registration Card**
- B. Enter the Organization exactly as shown on your Registration Card**
- C. Enter the ID exactly as shown on your Registration Card**

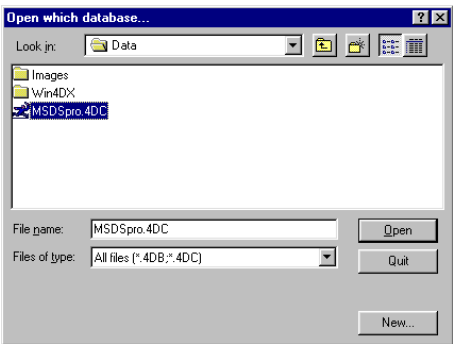


The screenshot shows a Windows-style dialog box titled "Identification". At the top, there is a blue header bar with the text "Welcome to 4D Server" and a small 4D logo. Below the header, a yellow callout box contains the text: "By clicking on Demo, you will launch a demonstration version limited to 50 records per table, 20 forms and 20 methods per database." The main area of the dialog box contains three input fields: "Name" with the text "Joe Smith", "Organization" with the text "ACME Chemicals, Inc", and "ID" which is currently empty. At the bottom of the dialog box, there are three buttons: "Demo", "Quit", and "OK".

- D. Store the Registration Card in a safe place for future reference**

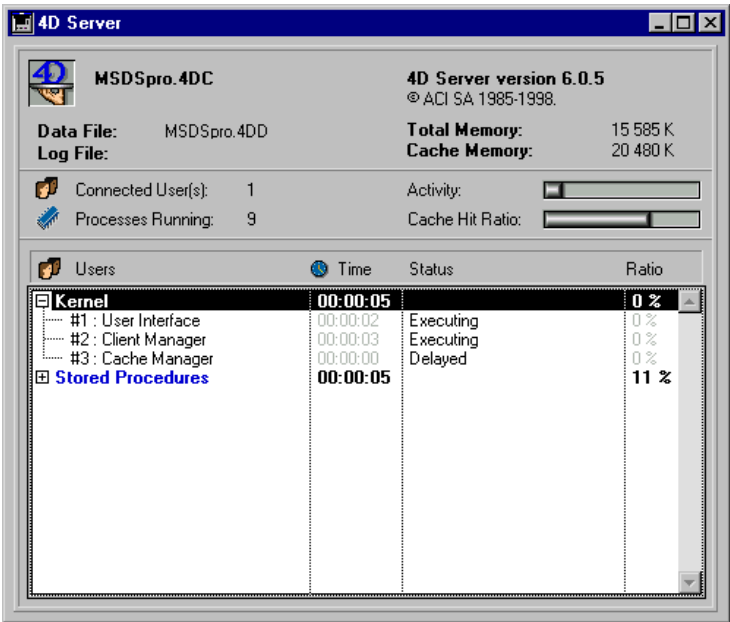
# Launching MSDSpro 4D Server (Cont'd)

- 2. At the *Open File* window, select the Msdsp<sup>ro</sup>.4DC file. By default, the installer will place this file within the *C:\Program Files\MSDSpro Server\Program* folder



After successfully launching and registering MSDSpro 4D Server, the screen below is shown. No modifications to the settings are required for standard operation of the MSDSpro Enterprise system.

For optimization, see *Configuring Database Cache Memory Settings* later in this section.



**WARNING:** One (1) Windows® NT Server setting must be modified to function properly with MSDSpro 4D Server before launching the application. See *Windows® NT: Configuration for Network Applications* later in this section.

## Configuring MSDSpro 4D Server

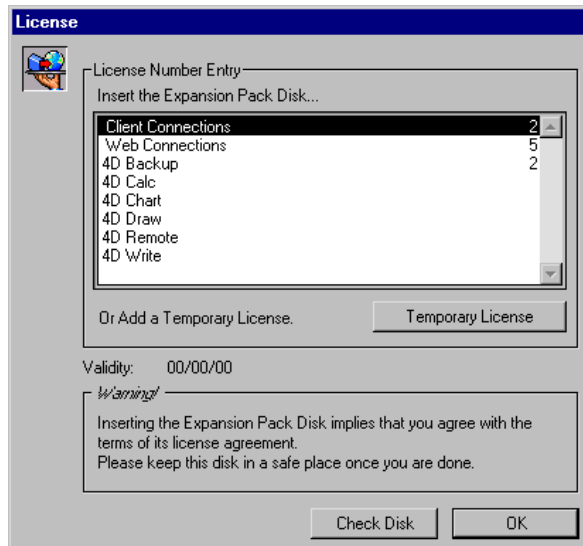
### Adding New User Licenses to MSDSpro 4D Server

MSDSpro Enterprise Basic ships with 2 user licenses installed. Additional user licenses may be added at any time by purchasing the licenses from MSDSpro. To add licenses, you must use Expansion Pack Disk(s) to install licenses from diskette.

To add New User Licenses to MSDSpro 4D Server:

1. **Launch 4D Server as shown earlier in this section**
2. **Choose *Update License...* from the *File* menu**

The *License* window appears. **Client Connections** initially shows that 2 user licenses are installed. After adding additional licenses from Expansion Pack Disk(s), it will display the total number of licenses installed. **Web Connections** shows 5 user licenses, however MSDSpro Enterprise actually provides an unlimited number of Web Connections.



3. **Insert the Expansion Pack Disk in the floppy disk drive of the server computer**
4. **Click the CHECK DISK button to recognize the disk**
5. **Click OK to display and confirm the total number of authorized Clients that will be connected to the server**
6. **Click the OK button to close the *License* window**

## Care of Expansion Pack Disks

Label your Expansion Pack Disks and keep them in a safe place. They must be retained for future use.

**WARNING:** *The Expansion Pack Disks are required if 4D Server ever needs to be moved to another server computer or reinstalled. Store the Expansion Pack Disks in a safe place for future use.*

**DO NOT UNINSTALL MSDSPRO 4D SERVER BEFORE REMOVING INSTALLED EXPANSION LICENSES.**

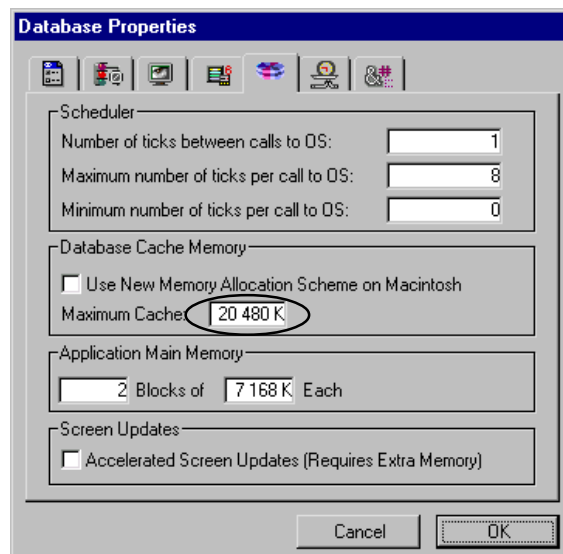
## Configuring Database Cache Memory Settings

MSDSpro maintains an internal Database Cache Memory, independent of any Operating System cache. It can be modified to improve performance.

To modify the size of the Database Cache Memory:

1. **Launch 4D Server as shown in this section**
2. **Choose *Database Properties...* from the *File* menu**

Choose the 5th tab ("Tune Up") from the *Database Properties* window. The **Maximum Cache** setting is shown with 20 MB (20480 KB) of RAM dedicated to the database cache. As a general rule, adding more memory to this setting will increase performance as long as the server computer has enough physical memory to support the specified setting. The **Database Cache Memory** is in addition to the **Application Main Memory**, which is set at 14 MB (2 blocks of 7168 KB each). Therefore, the settings shown require at least 34MB of physical memory dedicated to the server operation.





## Configuring Database Cache Memory Settings (Cont'd)

3. Click OK to accept the changes, or CANCEL to leave the settings unchanged
4. Quit and re-launch the 4D Server application for changes to take effect

## Configuring Windows® NT for MSDSpro 4D Server

### Windows® NT: Registering as a Service

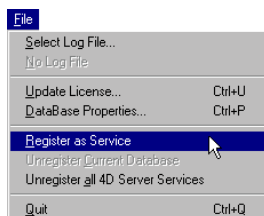
MSDSpro 4D Server can be registered as a Windows®NT Service. When a 4D Server database is registered as a service, it can be launched automatically at system startup and is not shut down when the user terminates the current Windows® Log session.

No more than one instance of a service can be running at a time.

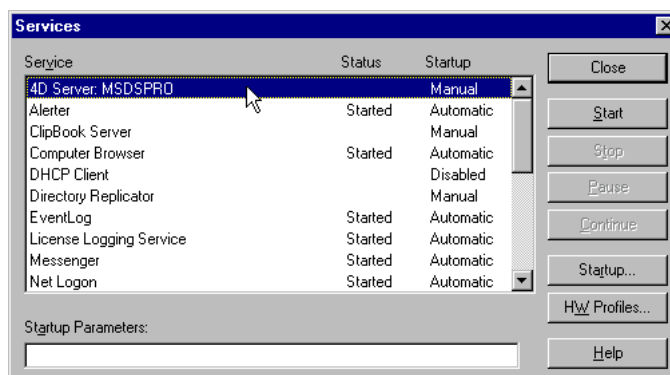
**NOTE:** *Registering MSDSpro 4D Server as a service is only available on Windows® NT 3.x and 4.x and 2000. The three menu items are disabled on other versions of Windows®.*

To register MSDSpro 4D Server as a Windows®NT Service:

1. Select **Register as Service** from the 4D Server **File** menu



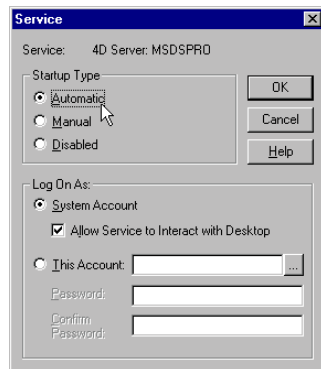
The *Windows® NT Services Control Panel* will display an entry for 4D Server:MSDSpro



## Windows NT: Registering as a Service (Cont'd)

2. Double-click the entry to display the *4D Server:MSDSpro Service Properties* window, or click the **STARTUP** button

Within the *Service Properties* window, you can specify the MSDSpro 4D Server service to automatically start at system startup and provide login information. You can also specify the service to be hidden (so it doesn't interact with the Desktop). We recommend allowing the service to interact with the desktop for ease of server administration.



3. Click **OK** to accept the changes, or **CANCEL** to leave the *Service Properties* unchanged
4. Click the **CLOSE** button to close the *Windows® NT Services Control Panel*

To unregister the database as a service, select *Unregister Current Database* from the MSDSpro 4D Server *File* menu.

The service registration status of MSDSpro 4D Server cannot be changed from within 4D Server, if the application has been launched as a service when Windows®NT was started. In this case, the three menu items are disabled. To stop the service, use the Windows®NT Services Control Panel.

**WARNING:**     *The full pathname for your database structure file cannot exceed 250 characters.*

## Windows® NT: Configuration for Network Applications

**WARNING:** *When MSDSpro 4D Server is installed on Windows® NT, the configuration of a specific Operating System setting is required before launching the application.*

By default, Windows® NT will attempt to provide maximum performance for File Sharing. This means that Windows® NT will attempt to store large amounts of hard disk information in RAM, which is much faster to access than the hard disk. This default setting can dramatically increase the amount of physical memory occupied by the Windows® NT Operating System itself.

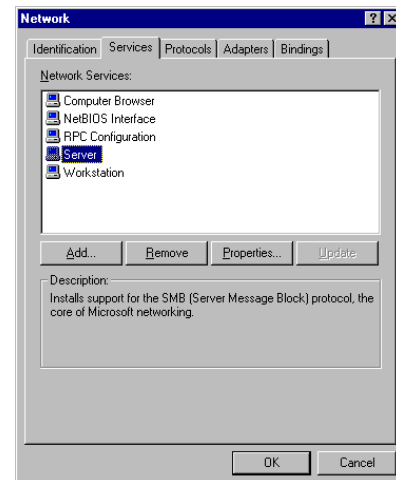
However, MSDSpro 4D Server has an internal disk cache mechanism which optimizes queries and sorts which have been performed by the database. This requires that Windows® NT must not cache the same disk activity (as this will eventually cause degraded performance and can lead to the system becoming unresponsive until the server machine is restarted.)

To configure Windows® NT memory for Network Applications:

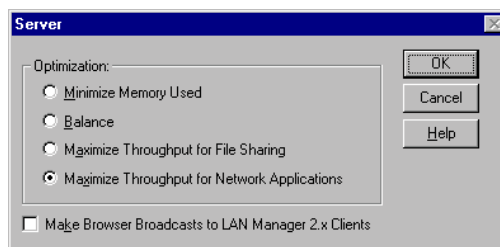
1. Open the **Windows® NT Control Panel**
2. Select the **Network Control Panel**



3. Select the **Services** tab
4. Select the **Server** service



5. Select **MAXIMIZE THROUGHPUT FOR NETWORK APPLICATIONS**

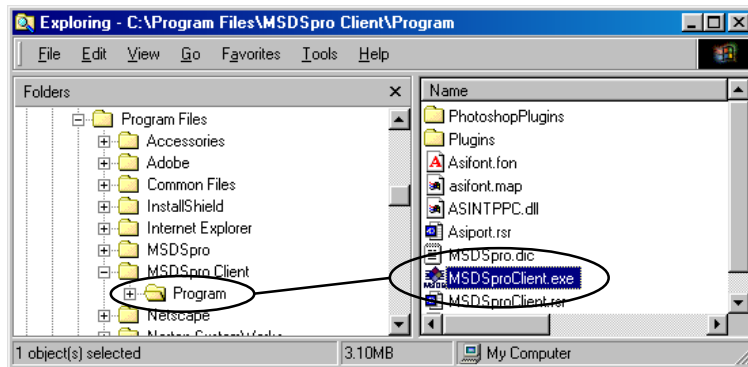


6. Click the OK button to save changes and restart the server machine if required

## Launching MSDSpro 4D Client

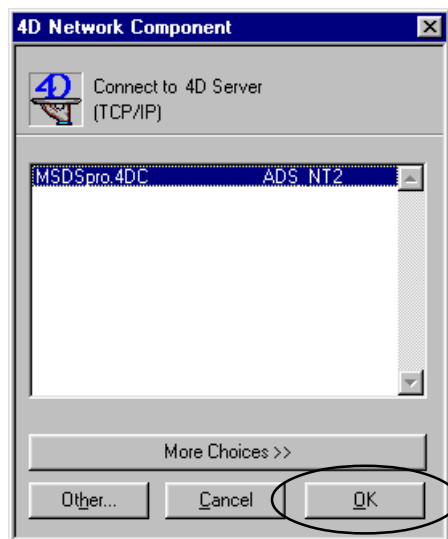
The MSDSpro 4D Server must be launched first, which enables MSDSpro 4D Clients to connect and use the system.

MSDSpro 4D Client application should be installed on workstations. The default installation location is *C:\Program Files\MSDSpro Client*, as shown below in Explorer.



To launch MSDSpro 4D Client:

1. Select **MSDSpro Client** from the **Start menu**, or double-click **MSDSproClient.exe** in the **MSDSpro Client\Program** folder as shown above in Explorer
2. From the **4D Network Component/Connect to 4D Server** window, select "MSDSpro.4DC"



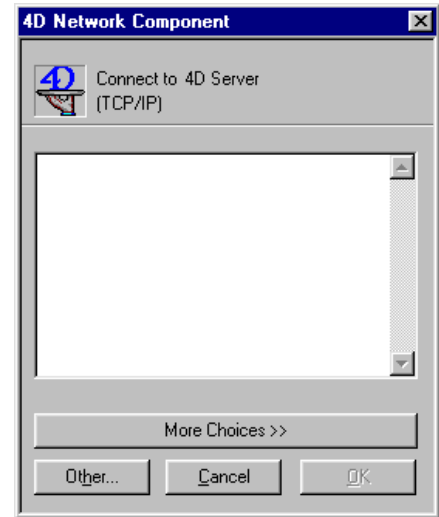
3. Click the **OK** button to connect to the MSDSpro 4D Server

## Launching MSDSpro 4D Client (Cont'd)

If you don't see a listing showing Msdspro.4dc, one or more of the following factors may be contributing to the problem:

- The Network may not be functioning.
- The MSDSpro 4D Client application may not be configured properly to communicate on the network.
- The MSDSpro 4D Server may not be started.
- The MSDSpro 4D Server may not be configured properly to communicate on the network.

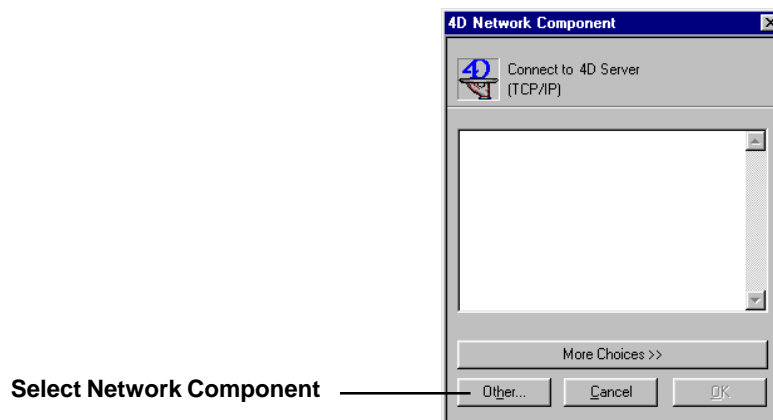
See the next topic for information on how to select a network component and configure the network settings.



## Selecting MSDSpro 4D Client Network Components

To select an alternate Network Component to communicate over the computer network:

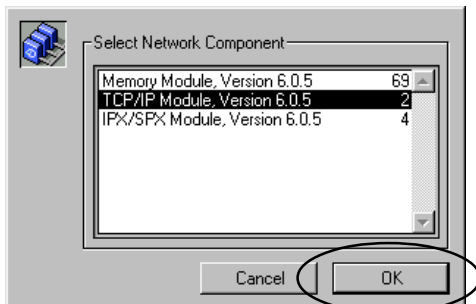
1. Click **OTHER** from the *Connect to 4D Server* window



## Selecting MSDSpro 4D Client Network Components (Cont'd)

The *Select Network Component* window will appear and a list of available Network Components will be shown.

2. Select the correct module (either TCP/IP or IPX/SPX)

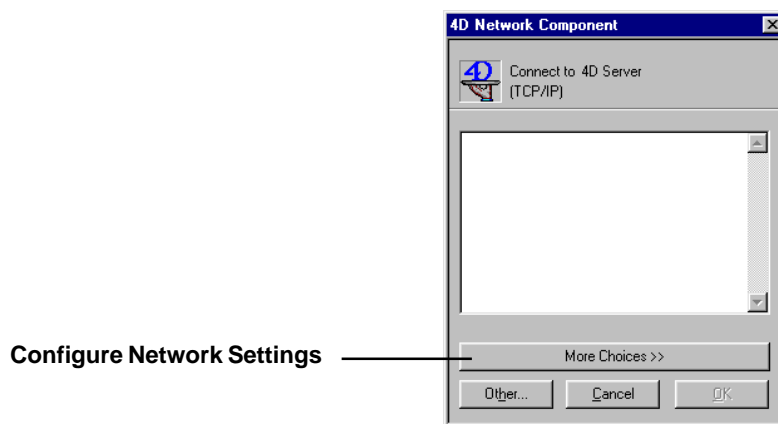


3. Click the OK button

## Configuring MSDSpro 4D Client Network Settings

To Configure MSDSpro 4D Client Network Settings:

1. Click **MORE CHOICES** from the *Connect to 4D Server* window



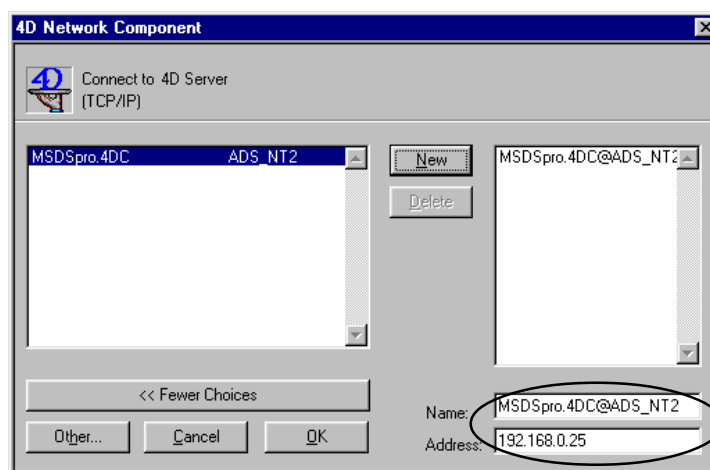
## Configuring MSDSpro 4D Client Network Settings (Cont'd)

2. **Name** should be **Msdsp.4dc@*machinename***

This information should be supplied by your network administrator.

3. **Address** should be the **MSDSpro Server network address**

This information should be supplied by your network administrator.



4. Click the **NEW** button to add it to the list at the top right
5. Click **OK** to connect to MSDSpro Server

## Launching MSDSpro Standalone Applications

To launch MSDSpro PlusWeb or MSDSpro Classic, select it from within *Start menu / Programs* or double-click **MSDSpro.exe**.

## Registration

The first time you use MSDSpro, you will be required to enter product registration information (as supplied on the Registration Card which was included in the initial shipment):

1. Enter the Name exactly as shown on your Registration Card
2. Enter the Organization exactly as shown on your Registration Card
3. Enter the ID exactly as shown on your Registration Card

The image shows a Windows-style dialog box titled "Identification". At the top left is the "MSDSpro" logo, and at the top right is the text "Welcome to MSDSpro". Below this, a message states: "By clicking Demo, you will enter MSDSpro in demonstration mode to begin your 60 day free trial." There are three text input fields: "Name" with "Joe Smith" entered, "Organization" with "ACME Chemicals, Inc." entered, and "ID" which is empty. At the bottom are three buttons: "Quit", "Demo", and "Register".

4. Store the Registration Card in a safe place for future reference

## Demo Mode

MSDSpro will function in Demo mode without a Registration ID for a period of 60 days from activation. Each time you access MSDSpro, it will present the registration screen.

While in Demo mode, the printing and save/export functions are disabled, and web served documents are limited in how much of the document is shown to the web browser.

After a period of 60 days, MSDSpro will no longer function in Demo mode. You must purchase a license to continue using the system.



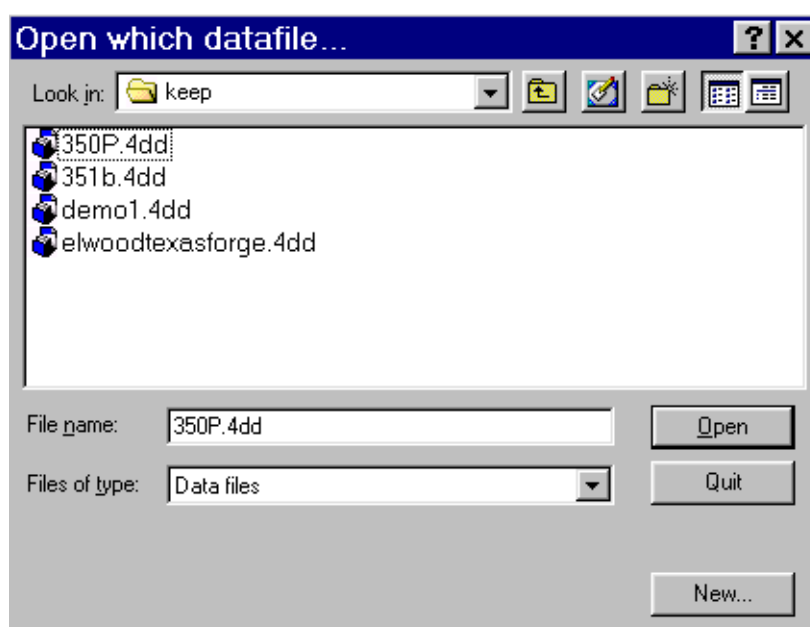
## Choosing your database

When launched MSDSpro will automatically load the most recently used database. If more than one database exists the user can load the database of their choosing using the following steps.

**1. Launch either MSDSpro Server or MSDSpro**

From the *Start menu* select either *MSDSpro Server/ 4D\_Serv* or *MSDSpro/ MSDSpro*.

**2. Hold down the ALT key immediately after launching MSDSpro. An *Open which datafile...* window will appear.**



**3. Select the database to be accessed by MSDSpro.**

**4. Click the OPEN button.**

## User Name and Password

After successfully launching MSDSpro, the appropriate password must be entered to use the User Names shown.

- **DBA, EHS, Supervisor and DBO User Names require passwords.**

The DBA password is “dba”.

The EHS password is “ehs”.

The Supervisor password is “supervisor”.

The DBO password is “dbo” (DBO is an optional User Name that may be created.)

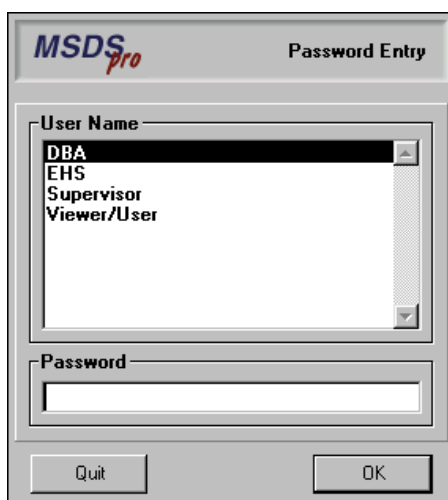
- **Viewer/User does not require a password.**

*NOTE: Passwords can be modified by the DBA, or the optional DBO. See the Special Functions section.*

To enter a User Name and Password:

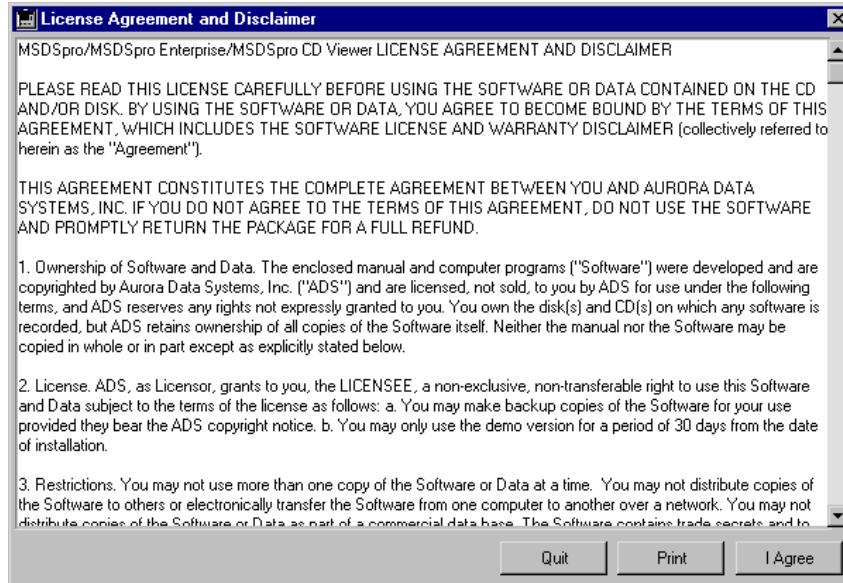
1. **Select the appropriate User Name**
2. **Enter the Password**
3. **Click the OK button**

Clicking the **QUIT** button will close the application.



## Accepting the License and Disclaimer

The first time you use MSDSpro, MSDSpro PlusWeb, or MSDSpro Enterprise, you must agree to the terms and conditions contained within the License Agreement and Disclaimer. If you do not agree to the terms and conditions set forth within the License Agreement and Disclaimer, you may click the **QUIT** button to quit the application.



## Contacting MSDSpro

**e-mail** support@MSDSpro.com

**Website** www.MSDSpro.com

**NOTE:** *Be sure to visit the MSDSpro Software Development website at [www.MSDSpro.com](http://www.MSDSpro.com) to review our Online Knowledge Base (OKB) within our Support area for the latest information about MSDSpro and related technologies.*

**Technical Support** (907) 258-6441

**Fax** (907) 274-6635

**Contacting by Mail** MSDSpro  
900 West Fifth Avenue, Suite 702  
Anchorage, AK 99501

# Admin User Access

## User Roles

Multiple User Roles are available, allowing different workgroups to access the system with different privileges.

The ability to add, modify, and delete data depends on the authorization granted to the User Role:

| <u>User Role</u>                           | <u>Access Group</u> | <u>Privilege</u>  |
|--|---------------------|---|
| <b><i>Database Owner (DBO)</i></b>         | Database Owner      | Password Editor Only (DBO is optional)  |
| <b><i>Database Administrator (DBA)</i></b> | DB Admin            | View Records<br>Add Records<br>Edit Records<br>Delete Records<br>Import/Export from all tables<br>Archives<br>Password Editor (If DBO not engaged)<br>System Preferences<br>All Update Options<br>Reports |
| <b><i>EHS</i></b>                          | Edit                | View Records<br>Add Records<br>Edit Records<br>Delete Records<br>Import/Export from all tables<br>Archives<br>All Update Options<br>Reports   |
| <b><i>Supervisor</i></b>                   | Browse              | View Records<br>Basic Reports & Labels  |
| <b><i>Viewer/User &amp; Web User</i></b>   | -                   | Read-only MSDS viewing interface  |

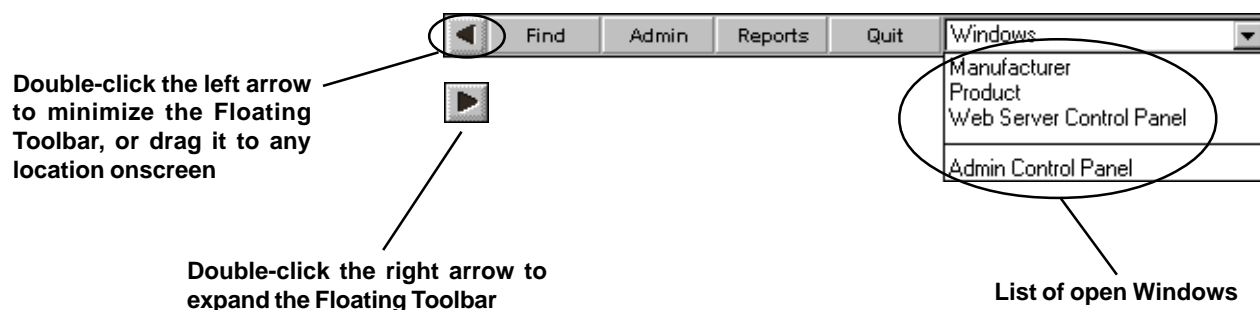
## Floating Toolbar

The Floating Toolbar floats above other open windows, and is positioned in the top-left corner of the screen. Clicking **Find**, **Admin**, or **Reports** will bring up the associated windows. Clicking **Quit** will exit the application.

You can select from a list of open windows by clicking the Windows pull-down menu, as shown.

If the Floating Toolbar interferes with an active window, simply double-click the small left arrow. The Floating Toolbar will be minimized and become a small right arrow. Double-click the right arrow to show the Floating Toolbar bar once again.

**HINT:** Drag the Floating Toolbar to any location onscreen by clicking on the arrow and dragging.



## Admin Control Panel

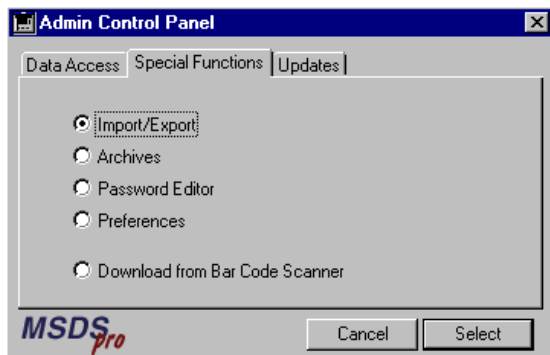
The *Admin Control Panel* allows Admin users to access specific Data Access screens, Special Functions and Updates to the data within MSDSpro.

- **Data Access tab:** These areas use *conventions* to consistently present data in a standardized, understandable format (see *Database Conventions*)

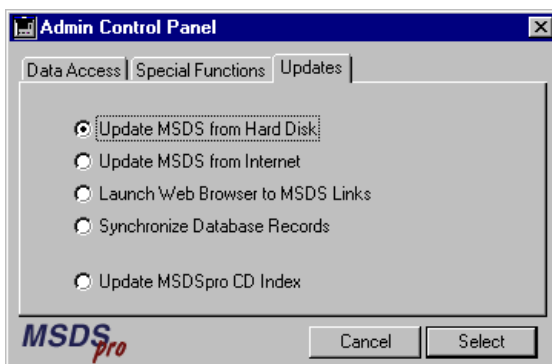


## Admin Control Panel (Cont'd)

- **Special Functions tab:** *Import/Export* and *Archives* follow the same database conventions as Data Access areas. *Password Editor* and *Preferences* are special areas that control how MSDSpro functions and can only be accessed by the DBA User Name.



- **Updates tab:** These areas allow the update of specific database information from different sources.



## Reports Control Panel

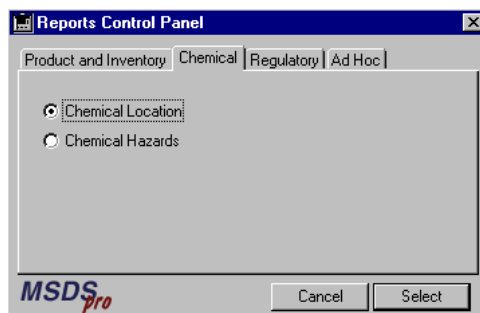
The *Reports Control Panel* allows users to create various comprehensive reports with the data stored within MSDSpro. The *Reports Control Panel* is divided into four areas:

## Reports Control Panel (Cont'd)

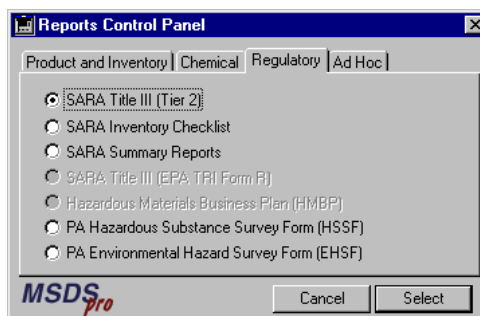
- **Product and Inventory tab:** Reports that Admin Users may regularly access. See *Section 7: Reports* for more information on each report.



- **Chemical tab:** Reports detailing information about specific chemicals as they are used within Products at specific Locations.



- **Regulatory tab:** Reports for Regulatory Agencies, such as SARA reports for the local and state emergency planning authorities. See *Section 7: Reports* for more information on each report.



## Reports Control Panel (Cont'd)

- **Ad Hoc tab:** Access to produce reports and container labeling for custom needs. See *Section 7: Reports* for more information on each report.





# Database Conventions and Operations

The design of screens, the placement and names of buttons, and the available menus conform to specific *database conventions* that were designed into MSDSpro. All forms that allow MSDSpro administrator access to the database tables for data entry and browsing use the same conventions as shown.

## Output Forms

*Output forms* list records, showing only a small summary of the data contained within the records. The title at the top of the window displays the name of the table currently being accessed, the number of records in the *current selection*, and the total number of records within the table.

The *current selection* refers to the currently selected records in the *Output form*, in a sorted order.

Table Name: Current Selection of Records of Total Number of Records in Table

| Manufacturer Name              | Address                | City           | State/Prov | Postal Code |
|--------------------------------|------------------------|----------------|------------|-------------|
| BDC Gases                      | 575 Mountain Avenue    | Murray Hill    | NJ         | 07974       |
| CAM2 Oil Products Company      | 380 West Butler Avenue | New Britain    | PA         | 18901       |
| CERTIFIED LABS DIV NCH CORP    | 101 West Highway       | IRVING         | TX         | 75015       |
| Chevron USA Products Company   | 575 Market St., Room 2 | San Francisco  | CA         | 94105-2856  |
| Colonial Chemical Company      | P.O. Box 1254          | Jonesville     | MI         | 56254       |
| Discus Dental, Inc             | 433 North Camden Driv  | Beverly Hills  | CA         | 90210       |
| Hewlett-Packard Company        | 1000 NE Circle Bouleva | Corvallis      | OR         | 97330-4239  |
| HUNTERS SPECIALTIES INC        | 6000 Huntington Courty | CEDAR RAPIDS   | IA         | 52402       |
| TEXACO REFINING & MARKETING IN | 1038 Pacific Coast Hig | Universal City | CA         | 91608       |
| WD-40 COMPANY                  | 1061 Cudahy Place      | SAN DIEGO      | CA         | 92138-0607  |

Record operation buttons

The record operation buttons at the bottom of the screen are to create a **NEW** record, **DELETE** the currently selected record(s), **FIND ALL** records in the table, **FIND** a new selection of records, **SORT** the current selection of records, and **CLOSE** the window.

To select (highlight) more than one record at a time:

- Hold the shift key while clicking a range of records to produce a *contiguous* selection of records, or
- Hold the CTRL key (Windows) or Command key (Macintosh) while clicking single records will produce a *discontiguous* selection of records

## Data Entry Forms

*Data Entry forms* allow you to modify or browse the entire record in detail. Double-clicking a record from the *Output form* will present the record in the *Data Entry form*. If the current user's User Role allows modification, the record will be editable.

The record navigation buttons allow movement between records, and will save any modifications to the record before displaying the next record. The buttons (left to right) are **FIRST** record, **PREVIOUS** record, **NEXT** record, and **LAST** record.

The record modification buttons are **DELETE**, **CANCEL**, and **SAVE**. **DELETE** will delete the current record shown and return to the *Output form*. **CANCEL** will cancel any changes to this record and return to the *Output form*. **SAVE** will save changes to the record and return to the *Output form*.

**EDIT LOG** will display a list of modifications made to the record, listed by date, time, and username. If the **EDIT LOG** button is not visible, this preference has been turned off by the DBA.

The title at the top of the window shows the name of the table, and the currently selected record out of the total number of records.

**Table Name: Current Record Number of Total Number of Records in Table**

The screenshot shows a window titled "Manufacturer: 1 of 10". The form contains the following fields:

- Manufacturer Name: DOC Gases
- PQ Box: (empty)
- Address: 575 Hill Avenue
- City: Blueberry Hill
- State/Prov: NJ
- Postal Code: 07954
- Country: (empty)
- Phone Number: (907) 464-5555
- Emergency Phone: (800) 424-5555
- Fax Number: (907) 464-5556
- Contact Name: Harold Guttenberg
- Local Vendor: BJC Inc
- MSDS E-Mail Address: msdsrequest@docgases.com
- MSDS URL: www.docgases.com/msdsdocs/index.htm
- Website URL: www.docgases.com
- Notes: (empty text area)

At the bottom of the form, there are several buttons and a thumb:

- Record navigation buttons:** Four buttons with icons for first, previous, next, and last record.
- Edit Log:** A button to display the listing of modifications to this record.
- Record modification buttons:** Three buttons labeled Delete, Cancel, and Save.
- Window Resize Thumb:** A small icon in the bottom right corner of the window frame.

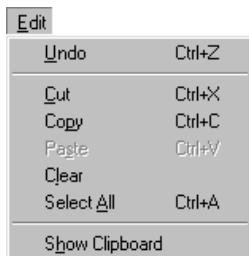
## Menus

### File Menu



- **Preferences** allows workstation-specific settings to be modified.
- **Import...** presents the *Import editor* for the current table.
- **Export...** presents the *Export editor* for the current table.
- **Page Setup** allows changes to the default printer setup.
- **Print...** presents the *Print Choices* window.
- **Report Editor...** presents the *Report editor* for the current table.
- **Quit** exits the application.

### Edit Menu



- **Cut, Copy, Paste, Clear** perform clipboard operations.
- **Select All** from an *Output form* will highlight all records shown.
- **Show Clipboard** displays the contents of the Clipboard.

### Selection Menu

- **Show All** displays all records in the current table.
- **Show Subset** selects only the highlighted records for the current selection.
- **Omit Subset** removes the highlighted records from the current selection.
- **Add Records** allows a new record to be added within the current table.

## Selection Menu (Cont'd)

| Selection                 |  |        |
|---------------------------|--|--------|
| Show All                  |  | Ctrl+G |
| Show Subset               |  | Ctrl+H |
| Qmit Subset               |  | Ctrl+J |
| Add Records               |  | Ctrl+N |
| Delete Records            |  | Ctrl+K |
| Copy Records              |  |        |
| Search Editor...          |  | Ctrl+S |
| Sort Editor...            |  | Ctrl+T |
| Apply Formula...          |  |        |
| Import Product Package    |  |        |
| Export Product Package    |  |        |
| Archive Selected Products |  |        |
| Close                     |  |        |
| View Archived Documents   |  |        |

- **Delete Record** deletes the highlighted records in the current open window.
- **Copy Records**
- **Search Editor...** presents the *Query editor* to search for records.
- **Sort Editor...** presents the *Order By editor* to sort the current selection.
- **Apply Formula** presents the *Formula editor* to apply a formula.
- **Import Product Package** only functions within the Product table.
- **Export Product Package** only functions within the Product table.
- **Archive Selected Products** only functions within the Product table.
- **Close** closes the current open window.
- **View Archived Documents** displays all documents archived within a specific Product record.

### Searching

Searching is one of the most common database operations. A search is often the most convenient way to select the records with which you want to work.

The term *searching* refers to finding a group of records in the database based on the contents of one or more fields. You perform a search by specifying a search condition. A *query* is a set of instructions that tells MSDSpro which records to include in the current selection.

A query always has three elements: field name, comparison operator, and value. The field name is from the current table or a related table. The comparison operator tells MSDSpro how to compare the contents of the field to the value you specify (equal to, greater than, less than.) The value specifies the number, string, or other value to which each record is compared.

Suppose you want to see all the records for products with revision dates less than 1/1/95. The search condition you would use is "Revision\_Date is less than 1/1/95." "Revision\_Date" is the field, "is less than" is the comparison operator, and "1/1/95" is the value.

When you search a database, MSDSpro compares the contents of the field in the search condition to the value you specify. The new current selection is made up of records that satisfy the rules stated in the query. The new current selection can be no records, one record, a group of records, or all the records in the table.

You can search on fields from other tables, provided that a relationship exists between the tables.

When you do the search, the new current selection is displayed in the *Output form*. You can reset the current selection to all the records in the current table by choosing *Show All* from the *Selection menu*, or clicking the **ALL** button at the bottom of the *Output form*.

### Indexed and Sequential Searches

MSDSpro can carry out queries very quickly if it has an ordered list of records to work from. An ordered list is called an *Index*. An index is associated with a particular field and is stored on disk as part of the data file.

A query that is performed without an index is slower than an indexed query because the MSDSpro must start at the beginning of the table and examine each record until it finds the records that meet the criteria you have set. To be sure that it has found all the records you are looking for, it must examine every record in the table sequentially. This process is called a *sequential search*.

If an index is available, the program "knows" where the target records are located. If you are searching for all products with a product name of Lead, the program will know where in the file the Lead records are located. Thus, it doesn't need to examine every record in the file, and is very efficient. This process is called an indexed search.

### Indexed and Sequential Searches (cont'd)

A good analogy for an index is a card catalog in a library. The card catalog is an alphabetized list of all the books in the library. Each record in the catalog contains information about where the book is physically located. If you are looking for a particular book, it would be very inefficient to conduct a sequential search of the library's entire holdings. It is much faster to consult the card catalog, obtain the location of the book, and then search the particular shelf on which the book is stored.

As you enter or import records, MSDSpro automatically updates all indexes. When you do searches, MSDSpro automatically uses indexes if they are available.

### Comparison Operators

When you write a query, you tell MSDSpro how to compare the value you specify to the contents of the database. For example, the query, "Name is equal to 'Lead'" uses the "is equal to" comparison operator. It tells MSDSpro to compare the values in the product name field to the string "Lead."

Comparisons involving alphanumeric values are not case sensitive. A search on the product name "Lead" will find records containing "lead," "LEAD," "LEad," and so on.

The following comparison operators are available:

- Is equal to
- Is not equal to
- Is greater than
- Is greater than or equal to
- Is less than
- Is less than or equal to
- Contains
- Does not contain

**NOTE:** *Queries using the Contains and Does not contain operators are always sequential queries.*

MSDSpro also has a wildcard character (@) that substitutes for one or more characters in the value being searched for. You use the wildcard character to do a "begins with" search. For example, to find products whose product name begins with "L," you would use the search condition, "Name is equal to L@." That is, you use "L@" as the value to be searched for. Using the wildcard character with the "is equal to" comparison operator is equivalent to a "begins with" comparison.

The @ symbol is used throughout MSDSpro as the wildcard character and is not limited to search conditions.

The wildcard character can be used only with Alpha or Text fields, it cannot be used in a Numeric or Date search.

## Simple and Compound Searches

You can search on one or more fields. A query on one field is called a *simple* query. For example, the search “Name is equal to ‘Lead’ ” is a simple query. When you do a simple query, MSDSpro examines the contents of one field when searching the database.

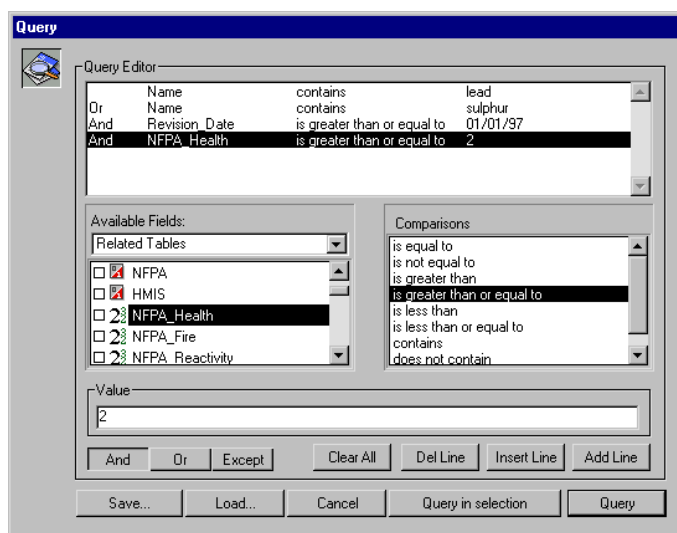
A query on two or more fields is called a *compound* query. When you do a compound query, you combine separate queries using a conjunction operator. The conjunction operator tells MSDSpro how to combine the results of the individual queries. There are three conjunction operators:

- **And:** This operator finds all the records that meet two conditions simultaneously. For example, the query “Find all the products that have a hazard rating of 2 and that are older than 1/1/95” will find the records of only those products that have a hazard rating of 2 and that have revision dates older than 1/1/95.
- **Or:** This operator finds all the records that meet either of two conditions. For example, the query “Find all the products that have a hazard rating of 2 or that are older than 1/1/95” will find the records of all the products with a hazard rating of 2, as well as all the products that are older than 1/1/95, regardless of their hazard rating.
- **Except:** This operator is the equivalent of “not.” The query “Find all the products that have a hazard rating of 2 except those which are older than 1/1/95” will exclude the all of the products that are older than the date 1/1/95.

The conjunction operators let you create compound queries such as “Find the products that have Lead or Sulphur in their name and are dated 12/31/95 or older, and have an NFPA health rating of at least 2.”

When this search is executed, MSDSpro finds all the products with Lead or Sulphur in their product name that are at least as old as 12/31/95 and have an NFPA health rating of 2 or higher.

The figure below shows this query being specified in the *Query editor*.



## The Query Editor

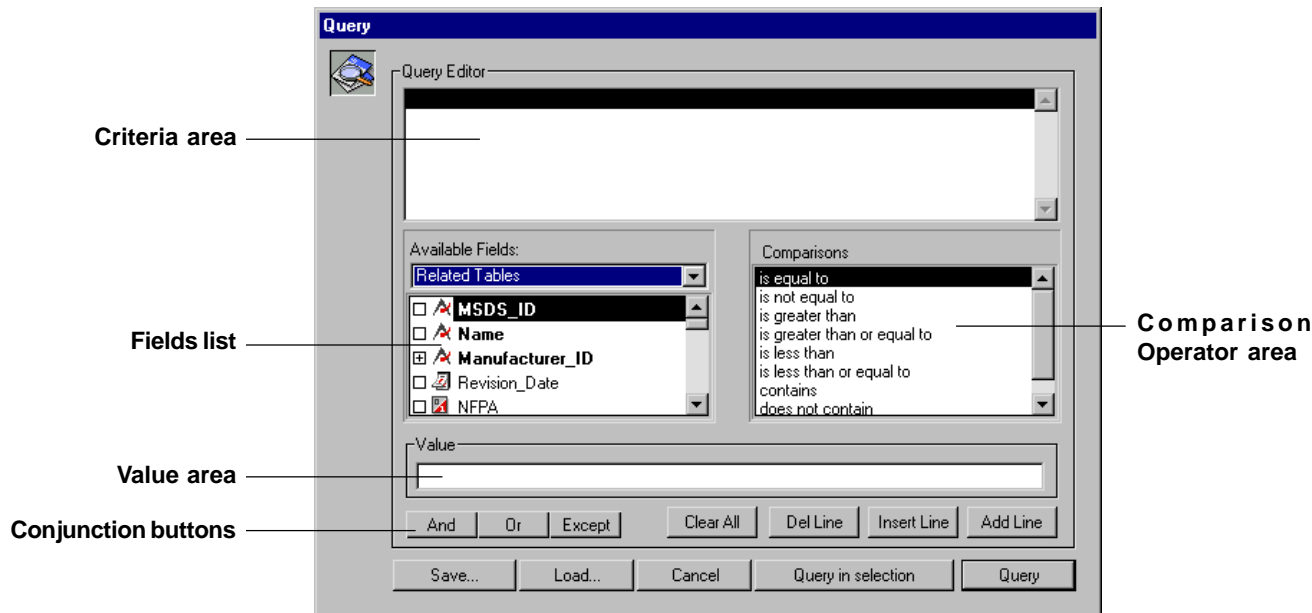
The *Query editor* is accessed from the *Selection menu*, or by clicking the **SEARCH** button in the *Output form*.

The *Query editor* is a general-purpose editor that can be used to create simple or compound queries. The *Query editor* lets you create compound queries linked with the And, Or, or Except conjunctions. For example, you can use the *Query editor* to perform a query for all products which have a hazard rating of 2 or are newer than 1/1/97.

- The *Query editor* gives you the choice of searching through the current selection of records or all the records in the table.
- The *Query editor* lets you save queries to disk and open them when you want to repeat the query.
- The *Query editor* allows you to search on any field in the current table and any fields in related tables. Related tables are other tables within the database that have information relating them to the current (default) table. Just as a parent can have many children, a “One” table may have many child records in other tables that have a “Many” relationship to the One table. An example of this is the product table, which may have many records related to it in the synonym, PPE, and inventory tables. In this case, the product is the One table, and synonym, PPE and inventory would be considered Many tables.

A search on a field in a related “many” table works like a search of the “one” table. The new current selection in the One table consists of all records that are related to at least one record in the Many table that meets the search condition. Searches on related tables are always sequential, even if the field being searched on is indexed, which is slower than a search only within the same table.

For example, products are stored in the One table and synonyms are stored in a related Many table, a search for products with synonyms named “sulphur” would produce the same current selection of products.





## The Query Editor (Cont'd)

The *Query editor* contains the following areas:

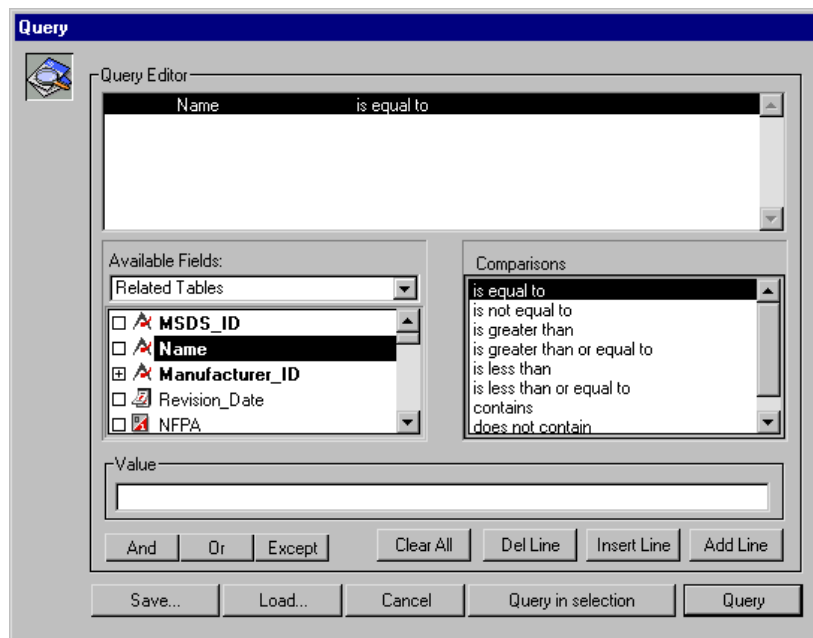
- **Criteria area:** This area displays your query as you create it or after you load it from a disk file.
- **Fields list:** This area displays a hierarchical list of the fields in the current table. Indexed fields are shown in boldface. If there are related tables, the foreign key fields in the current table can be expanded to display the fields in the related tables.
- **Comparison Operator area:** This area displays a list of comparison operators.
- **Conjunction buttons:** This area contains three buttons that correspond to conjunction operators you can use to join current simple query to the previous simple query.
- **Value area:** You enter values for which you want to search in this area.
- **Query in selection button:** This button performs the query only on the records in the current selection.
- **Query editor buttons:** You use this area to save your queries, load other queries from disk, cancel the query, or execute the query.

To create a query:

1. Select **Search** from the **Select menu**, or click the **SEARCH** button from an **Output form**

MSDSpro displays the *Query editor*, highlighting the first row of the Criteria area.

2. Click a field name to use in the query. If you don't want to use the "is equal to" operator, click the desired comparison operator

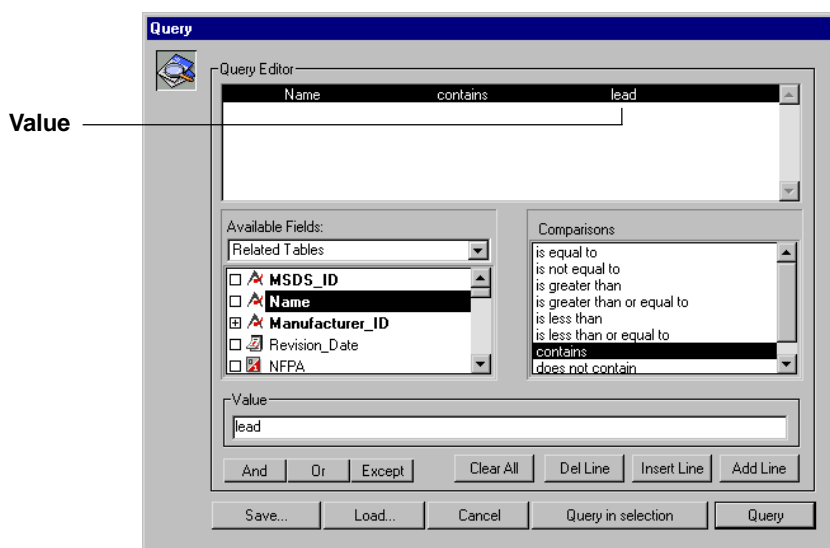


## The Query Editor (Cont'd)

Comparison operator choices:

- Is equal to
- Is not equal to
- Is greater than
- Is greater than or equal to
- Is less than
- Is less than or equal to
- Contains (Alpha and Text fields only)
- Does not contain (Alpha and Text fields only)

3. Type the value for which you want to search for in the Value area



In a Text or Alpha field you can use the wildcard character (@) at the end of the value to request a "Begins with" search.

If the field you selected is a Boolean field, MSDSpro displays a pair of radio buttons.

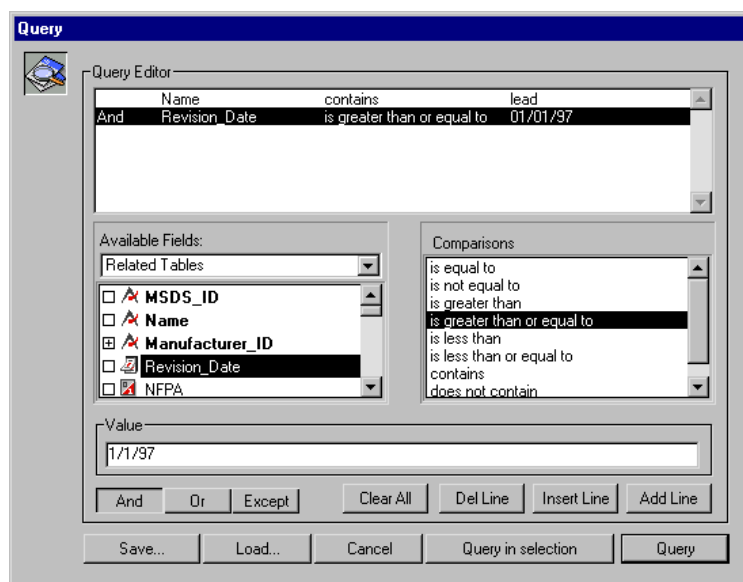
4. To add another simple query, click **ADD LINE**

MSDSpro adds a new line using the "And" conjunction operator.

5. To use the "Or" or "Except" operator, click the desired conjunction operator button

Repeat steps 2 and 3 to build the second simple query.

## The Query Editor (Cont'd)



When you build a compound search condition, MSDSpro evaluates the conditions in the order in which they appear in the *Search editor* (i.e from top to bottom).

There is no precedence among the conjunctions. Thus, if you have used more than two simple queries in building the compound query, the order in which you enter the simple queries can affect the results of the query.

As you build a compound query, you can modify existing parts of the query by clicking the line you want to change and clicking a new field or operator or typing a new value.

You can remove a simple query by selecting the line and clicking **DEL LINE**. In a compound query, you can remove one line of the query by clicking the **DEL LINE** button.

### 6. To save the query to disk file, click **SAVE** and enter a filename in the *Create File* window

You do not need to save your query to perform the search.

### 7. Click **QUERY** to search the entire table, or **Query in Selection** to restrict the query to the current selection

Or, click **CANCEL** to close the *Search editor*.

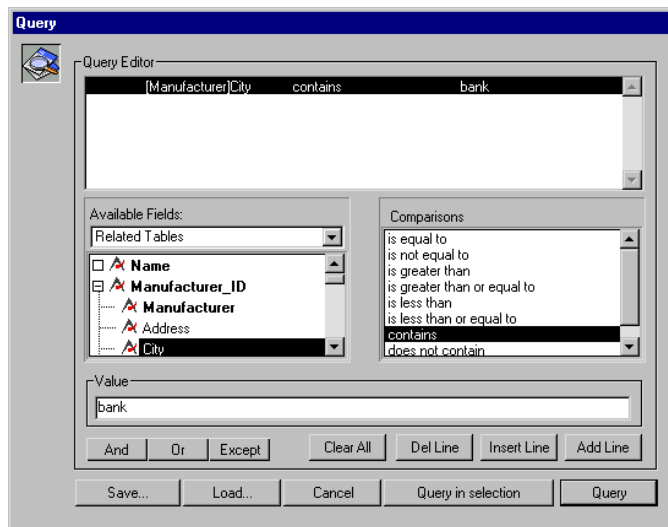
## The Query Editor (Cont'd)

You can use the *Query editor* to search on related tables. If the field you want to search on is in a related table, expand the foreign key field in the master table to display fields from the related table. The following illustration shows an expanded foreign key field.

To select a field from another table:

1. **Expand the foreign key field by clicking the plus sign**

The fields belonging to the related table appear in the hierarchical list.



2. **Click to the desired field in the related table**

3. **Follow the steps 3 through 7 for directions on creating the rest of the query**

**Advanced Users:** If you perform a query often, you may want to save the query to disk. When you save a query to disk, you need only create it once. In subsequent uses of the *Query editor*, you simply load the query from disk, modify anything you wish to (perhaps a new date range for a report you create periodically) and click **OK** to perform the search.

To save a query to disk:

1. **Click the SAVE button**

2. **Click OK**

The query is saved to disk. Simply load it next time to use the same query again.

To load a saved query from disk:

1. **Click LOAD and select the desired file**

## Sorting Records

A *sort* reorders records according to the values in the table. It is common to sort records to view records on screen in a particular order, or before printing a report or exporting data.

As you enter data into the database, MSDSpro stores the records in the order in which they are entered or imported. When you list records in an output form or print records, they appear in this order. Often, you want to view records in another order. For example, you might want to alphabetize a list of Product Names in a report - a sort on the Product Name field reorders the records alphabetically by Product Name.

MSDSpro conducts indexed sorts very quickly. If you are sorting on only one field and that field is indexed, MSDSpro uses the index.

You can sort records on up to 30 different fields or formulas. Each field or formula you sort on is referred to as a *sort level*. For example, the results of a two-level ascending sort on the Product Revision Date and Name would product a list such as this:

```
04/22/91, Acetone
04/22/91, Crude Oil
.
.
09/25/98, Acetylene
09/25/98, Green Stuff Absorbent
```

When sorting the contents of fields, MSDSpro is not case sensitive.

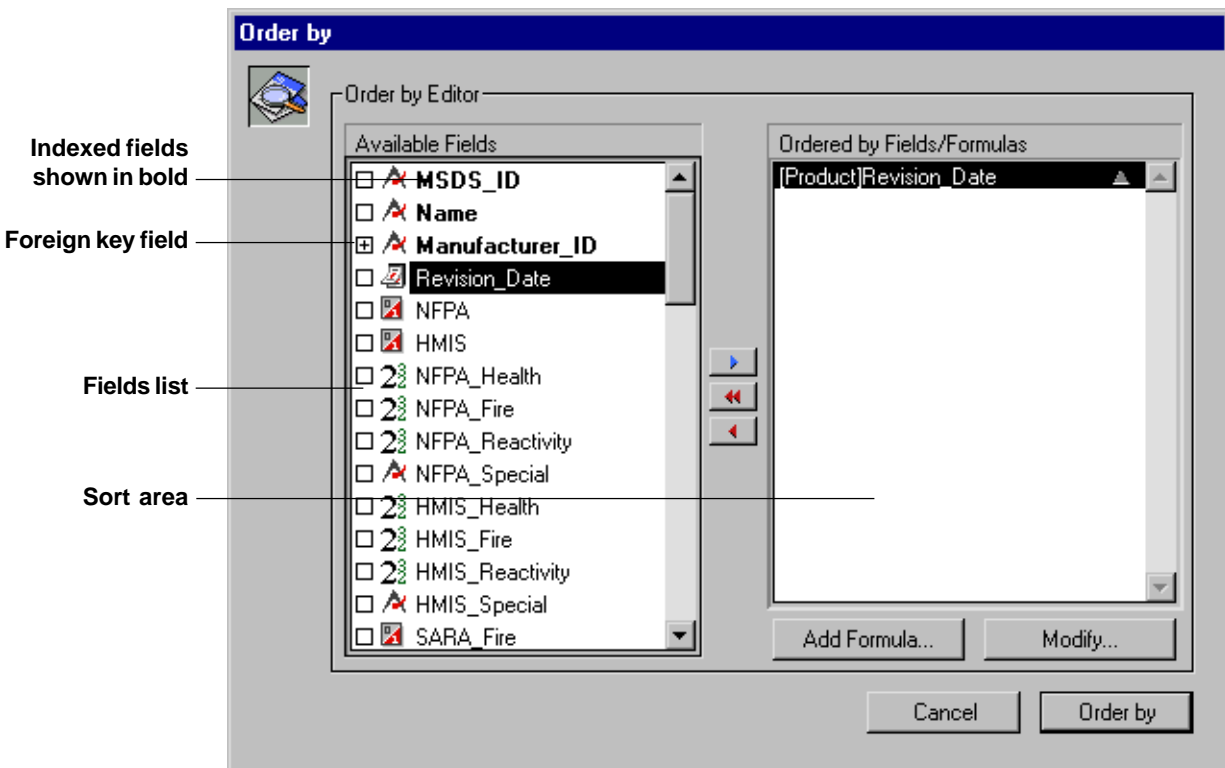
You can specify either an ascending or descending order for each field or formula that you are sorting on. Sorting from A to Z or smallest to largest is known as an *ascending* sort. Sorting in the reverse order is called a *descending* sort - largest to smallest, latest to earliest, and Z to A.

If you are sorting on more than one level, you can freely mix ascending and descending sort orders. A multiple-level sort can mix fields and formulas and ascending and descending sort orders.

## The Order By Editor

You use the *Sort Editor* item in the *Selection menu* to sort the records in the current selection. Sorting the current selection changes the order in which records are displayed or printed. This is a temporary sort; it does not affect the order in which the records are stored on disk.

When you choose *Sort Editor*, the *Order By editor* enables you to specify the sort you want to perform.



- **Fields list:** This area displays a hierarchical list of fields in the current table. Indexed fields are shown in boldface. You can sort on fields from related tables. To use a field from a related table, expand a foreign key field by clicking on the plus sign to display the fields from the related table.
- **Sort area:** This area displays the sort fields or sort formulas and the direction of each sort. The arrows on the right of this area are used to specify an ascending or descending sort.
- **ADD FORMULA button:** You use the **ADD FORMULA** button to write a formula as one of the sort criteria. You use a formula when you want to sort on something that is not a field - such as a calculated value or a portion of a field.
- **Button panel:** The button panel has buttons for adding or removing fields from the sort list.
- **MODIFY button:** When you click the **MODIFY** button, it displays the selected sort criterion in the Formula editor. If the selected criterion is a formula, the formula is presented for editing. If the criterion is a field, the field name appears in the editing window of the Formula editor.

## Sorting a Selection

You select *Sort Editor* from the *Selection menu*, or click **SORT** in any *Output form* to sort the records in the current selection. Sorting the current selection changes the order in which records are displayed or printed. This is a temporary sort; it does not affect the order in which the records are stored on disk.

When you select *Sort Editor*, the *Order By editor* appears, allowing you to specify the sort to perform.



Use the *Sort Editor* menu item to sort the current selection of records. This sort is temporary and applies only to the current selection; it does not affect the order in which records are stored in the database. Sorting is commonly used immediately after a query and before printing a report.

To sort the current selection:

1. Choose ***Sort Editor*** from the *Selection menu*
2. Double-click the name of a field on which you want to sort, or drag the field name from the Fields list to the Sort area, or to sort on a formula, click the **ADD FORMULA** button

When you open the *Order By editor*, the Fields list displays the fields from the master table. You can choose fields from related tables by expanding a foreign key field.

If you clicked the **ADD FORMULA** button, MSDSpro displays the *Formula editor*. For information on writing a formula, see *The Formula Editor* later in this section.

The field name or formula appears with a sort direction arrow in the Criteria area.

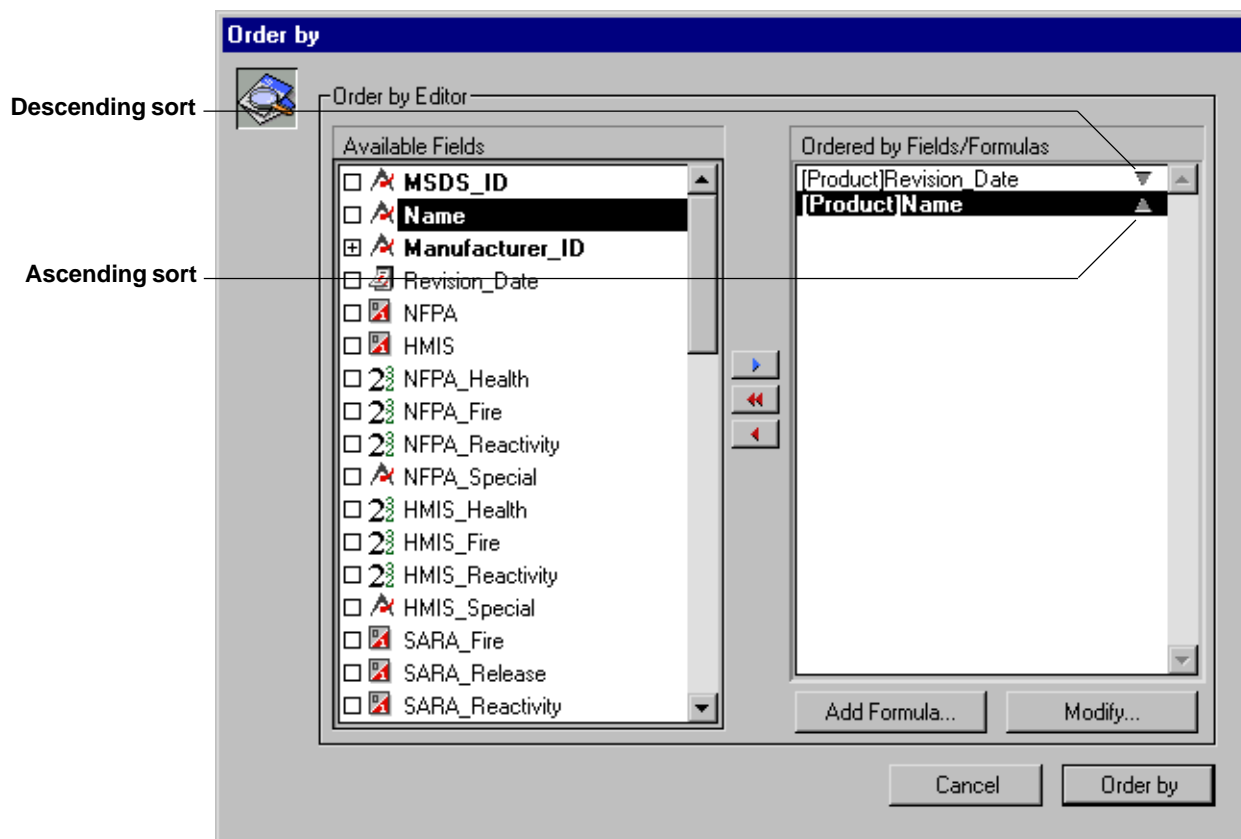
3. If necessary, click the sort direction arrow in the Sort area to switch between ascending and descending sort order

Up is ascending; down is descending.

4. If necessary, repeat steps 2 and 3 to add secondary sort levels to the list

For each sort level, you can specify ascending or descending order.

## Sorting a Selection (Cont'd)



**FOR EXAMPLE:** The sort order shown lists Products sorted by date, then by Product name.

### 5. Click the ORDER BY button

MSDSpro sorts the current selection.



## Quick Reports (Ad-Hoc Reports)

One of the most important tasks in data management is the generation of reports. Frequently used “built-in” reports are accessed from the *Reports Control Panel*. However, for ad-hoc reporting capabilities, you can use the *Quick Report editor* to create a wide variety of columnar reports.

Using the *Quick Report editor* you can do the following:

- Produce lists of records
- Create break areas between groups of sorted records
- Compute summary calculations
- Use fonts and styles in the report

The *Quick Report editor* produces reports from the current selection of records. Before you print a report, you must select the records you want to include in your report (usually by performing a search from the *Selection menu* in an *Output form*.)

MSDSpro's *Quick Report editor* lets you create and print tabular reports. Output from a typical Quick Report is shown below:

| Equip_Location       | Name                              | Start_Date |
|----------------------|-----------------------------------|------------|
| ALL UNITS            | MULTIFAK AFB 2 (D0940)            | 1/1/80     |
|                      | Subtotal for ALL UNITS            | 1          |
| BOHO                 | ACTIVATED ALUMINAS                | 8/1/96     |
|                      | ADVANTAGE PLUS 1050 DEPOSIT       | 1/6/97     |
|                      | INHIBITOR                         |            |
|                      | Subtotal for BOHO                 | 2          |
| COOLING TOWERS (ALL) | DREWSPERSE 2675 ANTISCALANT       | 1/20/97    |
|                      | Subtotal for COOLING TOWERS (ALL) | 1          |
| CPD                  | ATTACK                            | 1/8/97     |
|                      | CHARCOAL, ACTIVATED               | 11/5/96    |
|                      | DOCTORS SOLUTION                  | 11/20/96   |
|                      | ORTHO-TOLIDINE SOLUTION           | 10/1/96    |
|                      | Subtotal for CPD                  | 4          |
| CRU-3                | SULFRZOL 40                       | 5/24/95    |
|                      | UOP R-56 CATALYST                 | 9/1/96     |
|                      | UOP R-56X CATALYST                | 9/1/96     |
|                      | Subtotal for CRU-3                | 3          |

When you create a Quick Report, you can specify the following:

- Columns displaying fields or formulas, either from the current table or from related tables
- Sort levels and order
- Break levels
- Summary calculations
- Text for labels
- Formats for numeric and Boolean data
- Font, font size, style, and justification for labels, summary calculations, and data
- Page headers and footers

## Quick Reports (Ad-Hoc Reports) (Cont'd)

A Quick Report can be printed/output to:

- A Printer
- A Disk File
- A Graph

These options are discussed in *Selecting an Output Device* later in this section.

### Creating a New Quick Report

The *Quick Report editor* lets you create reports in the User environment. To create a Quick Report design, choose *Report Editor* from the *Selection menu* on any *Output form*. MSDSpro displays the *Quick Report editor*. If an existing design is displayed, choose *New* from the *File menu* to begin a new Quick Report design.

### Loading and Saving a Quick Report Design

You can save a Quick Report design as a file that you can open from the *Quick Report editor*. The Quick Report design includes all your specifications, but not the data. By saving report designs, you can maintain a library of Quick Reports that you can use depending on your needs.

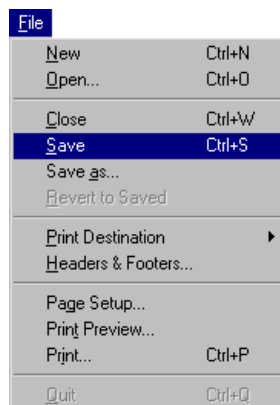
**NOTE:** *If you do not save your design, it will not be displayed the next time you open the Quick Report editor.*

## Saving a Quick Report Design

To save a Quick Report design, follow these steps:

### 1. Choose **Save** from the *File menu*

MSDSpro displays a *Save File* window.



## Quick Reports (Ad-Hoc Reports) (Cont'd)

### 2. Enter a filename for the Quick Report and click SAVE

MSDSpro saves the report as a file that you can open with the *Quick Report editor*. You can save the file to any hard disk available to you.

**NOTE:** If you are saving a report previously saved or loaded, it replaces the previous report.

## Loading a Quick Report Design

When the *Quick Report editor* is open, you can load a saved design and use it to print a new report. The same Quick Report design can be used repeatedly to print different selections of records.

To load a report design:

### 1. Choose *Open* from the *File* menu

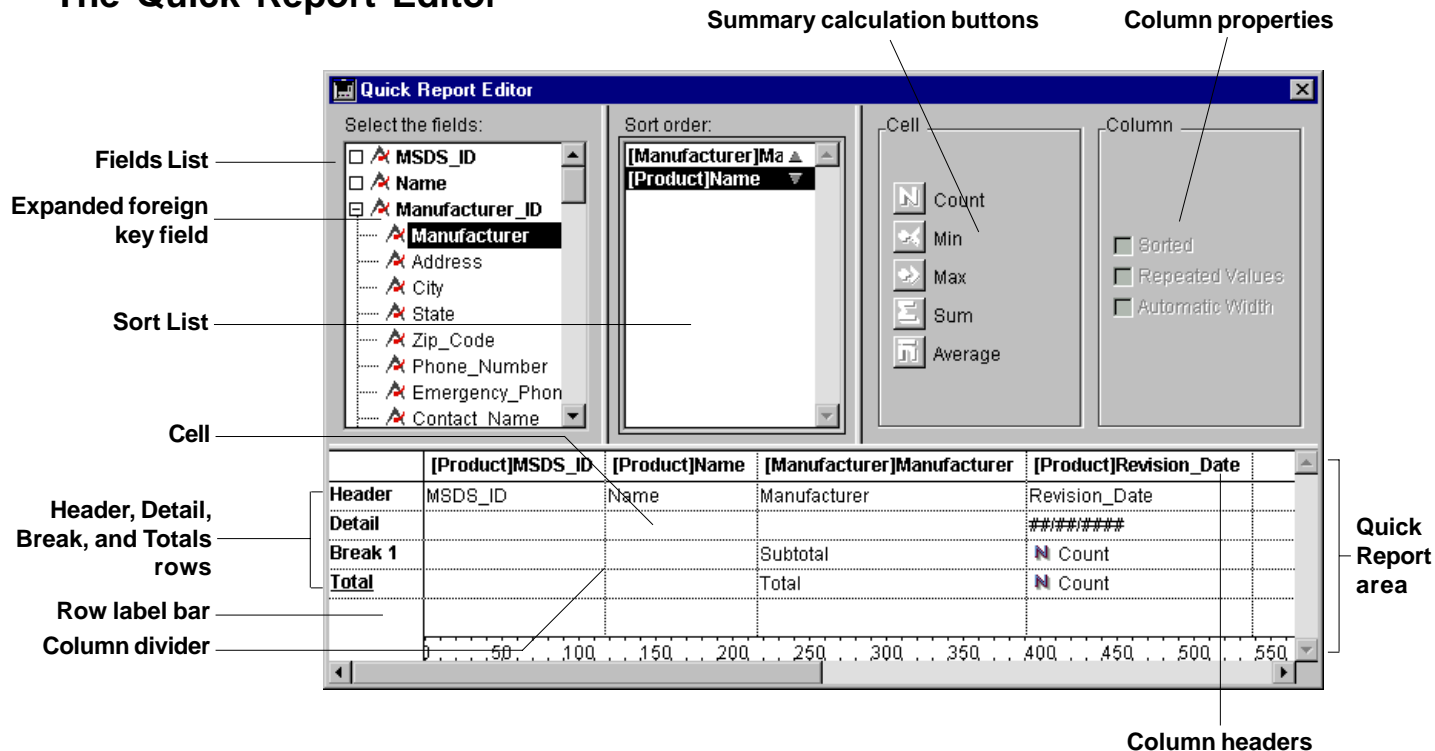
MSDSpro displays an *Open File* window displaying a list of available quick report designs.



### 2. Select a file from the list and click OPEN

MSDSpro replaces the current report design with the design you opened.

## The Quick Report Editor



The *Quick Report editor* contains the following elements:

- **Fields list:** This list displays fields in the current table. You can view the names of fields in other tables by expanding the foreign key fields. A foreign key field has a plus sign to its left.
- **Sort list:** This list displays the sort order assigned to the report and indicates whether each sort level is ascending or descending. If your report will contain summary calculations from groups of records, you must sort the current selection on one or more fields. You can change the order of fields in the Sort list by dragging the field name vertically to the desired position in the list.
- **Quick Report area:** You use this area to design the report by dragging fields, adding formulas, adjusting column widths, and adding or deleting breaks.
- **Summary calculation buttons:** You use these buttons to place summary calculations in the Break and Total areas of the report.
- **Column properties:** You use these check boxes to set the following characteristics for each column in the report:
  - **Sorted:** Click this check box if you want the records to be sorted on the selected column.

## The Quick Report Editor (Cont'd)

- **Repeated Values:** Use this check box to tell the *Quick Report editor* to repeat the values in a Break column. If you do not select the Repeated Values check box, each Break value is displayed only once.
- **Automatic Width:** Click this check box to request that the *Quick Report editor* calculate the column width of the selected column based on the maximum length of the contents of the column. The sizing is done only at the time the report is printed. This option can be checked for each column individually. The check box does not refer to the entire report. If the Auto Column Width check box is not checked for a column, you can modify that column's width by dragging column indicators, and your reports may print much faster.

**WARNING:**

*Deselecting this option, and manually setting the column width, can result in substantially faster printing. Leaving the Automatic Width option selected can slow the printing of large reports significantly.*

- **Column Dividers:** These lines indicate the boundaries between columns of the report.
- **Right margin marker:** This marker indicates the right margin of the report. The right margin marker is meaningful only when no columns have the Auto Column Width check box selected. You may have to scroll horizontally to view the right margin marker.
- **Column header:** The column header displays names of fields or formulas in the report.
- **Row label bar:** This bar shows the different areas of the report: the Header, Detail, Break, and Total rows.
- **Header row:** This row contains information that appears in the printed report above the records. The Quick Report editor automatically places field names in the Header row, but you can modify its contents.
- **Detail row:** This row prints information from individual records and will be repeated in the printed report for each break.
- **Break and Totals rows:** These rows display summary calculations and any associated labeling. The Break row displays summary calculations for each group of sorted records in the report and the Totals row displays summary calculations obtained from all records in the current selection.
- **Cells:** Cells are the intersection of a row and a column.
- **Scroll bars:** You use the scroll bars to view parts of the quick report design that extend beyond the area of the quick report form.

# The Quick Report Editor (Cont'd)

The various list and display areas in the *Quick Report editor* can be resized. Areas that can be resized are bordered by a raised line.

## The Quick Report *Pop-up Menus*

The *Quick Report editor* has “hidden” *pop-up menus* that make it easy to access certain row, column, and cell operations. Instead of making menu selections or working with the Cell or Column properties areas, you can perform certain operations by displaying a Quick Report *pop-up menu*. There are separate *pop-up menus* for row, column, and cell operations.

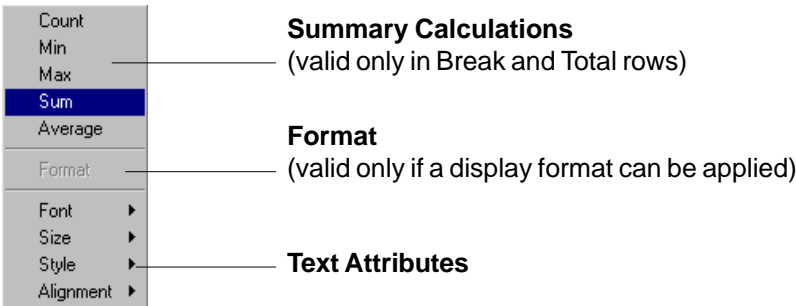
To use a *pop-up menu*:

1. **Position the pointer in a cell, a row label, or a column heading and hold down the right mouse button**

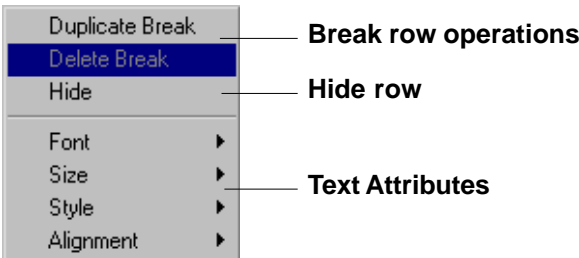
A *pop-up menu* appears. The commands in the *pop-up menu* depend on where your pointer is (i.e., a row label, column heading, or cell). Also, menu commands that are inappropriate for the particular row, column, or cell are disabled.

The three Quick Report *pop-up menus* consist of:

### ■ Cells

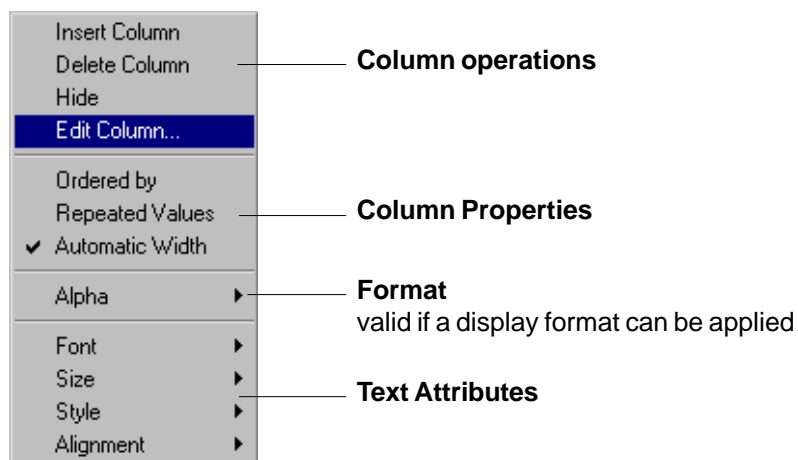


### ■ Rows



## The Quick Report Editor (Cont'd)

### ■ Columns



### 2. Choose the desired menu command

### Selecting Rows, Columns, and Cells

When designing a Quick Report, you need to select rows, columns, and cells in the Quick Report layout. A cell is the intersection of a row and a column.

To select a row:

1. Click on the H, D, B, or T markers on the row label bar to the left of the Quick Report layout. Or, click in a row to the right of all columns in the Quick Report layout

To select a column:

1. Click above the Header row of a column

To select a cell:

1. Click the cell

## The Quick Report Editor (Cont'd)

### Adding and Modifying Text

You can add or modify text in the Quick Report layout. Text can be used to label parts of the report. For example, if you requested summary calculations, you can add text to other cells in the Break and Total rows to label the summary calculations.

You can do the following:

- **Edit the text that MSDSpro automatically adds to the Header row of the report**
- **Insert text in empty cells of the Break and Totals rows**
- **Insert the value of a Break field in the Break rows**
- **Specify the font, font size, justification, and style for any text that appears in the report**

### Adding Text

To add text:

1. **Click twice on an empty cell in the Quick Report layout**

A text insertion point appears in the cell. If you are entering a label for a summary calculation, select a cell in the same row as the cell containing the calculation icons. You cannot enter text into the same cell that contains summary calculations.

2. **Type the text in the cell**

### Modifying Text

To modify text:

1. **Drag across the text in the cell to modify. MSDSpro highlights the selected text**
2. **Type the new text in the cell**

### Specifying Font, Font Size, Justification, and Style

While designing your Quick Report, you can specify different fonts, font sizes, justification, and styles. You can apply these specifications to rows, columns, or cells in the Quick Report. These specifications can be applied to text, data, and summary calculations.

If you assign specifications to the Detail row of the report, you will not see the results until you preview or print the report.

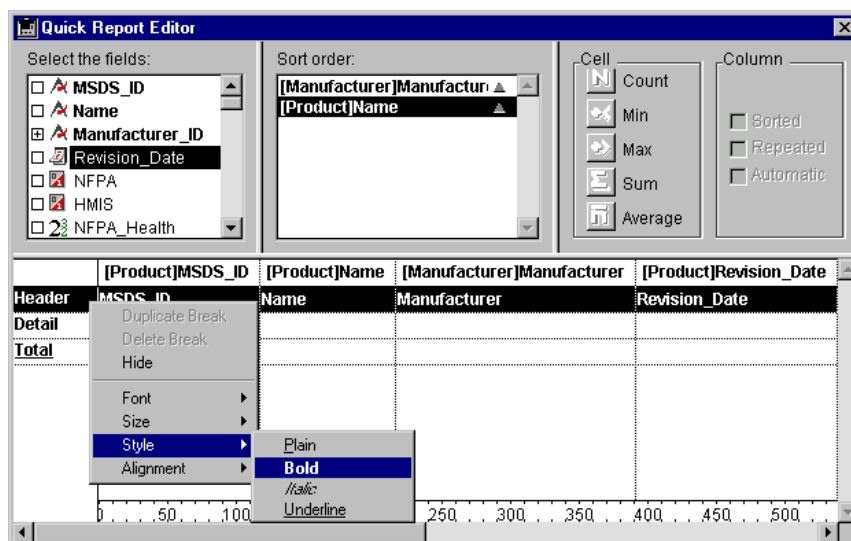


## The Quick Report Editor (Cont'd)

To specify a font, font size, style, or justification:

1. Select the column, row, or cell where you want to apply the font
2. Choose a font from the *Font menu* or choose a font size, style, or justification from the *Style menu*, or hold down the right mouse button to display the Quick Report *pop-up menu* to select text attributes

MSDSpro applies the font to text, data, and summary calculations in the selected area.



### Adding Columns to the Report

You create columns by dragging field names from the Fields area to the Quick Report layout. You can add fields from related tables, provided the relationship exists. To add fields from related tables, click the plus sign on the Foreign key field to expand the list of available related fields.

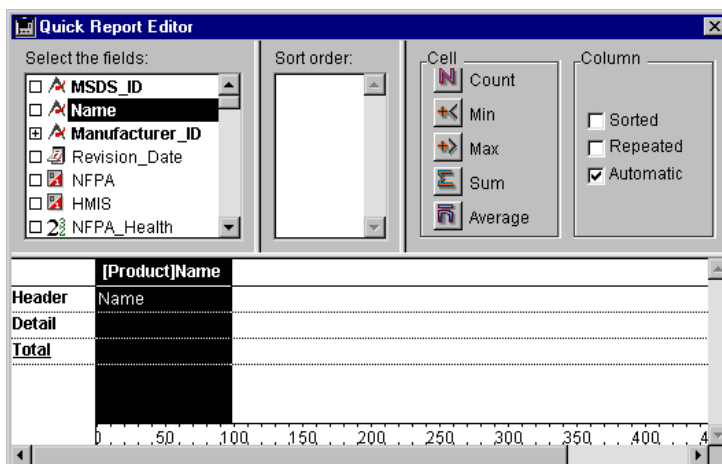
To add a column:

- Drag the name of a field to the right of existing columns in the Quick Report layout and release the mouse button

MSDSpro creates a column for the field and places the field name in both the column header and the cell in the Header row.

## The Quick Report Editor (Cont'd)

The figure below shows the Product Name field added as a column to the Quick Report layout:

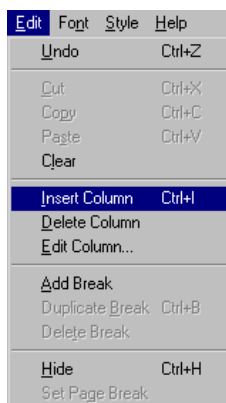


### Inserting Columns

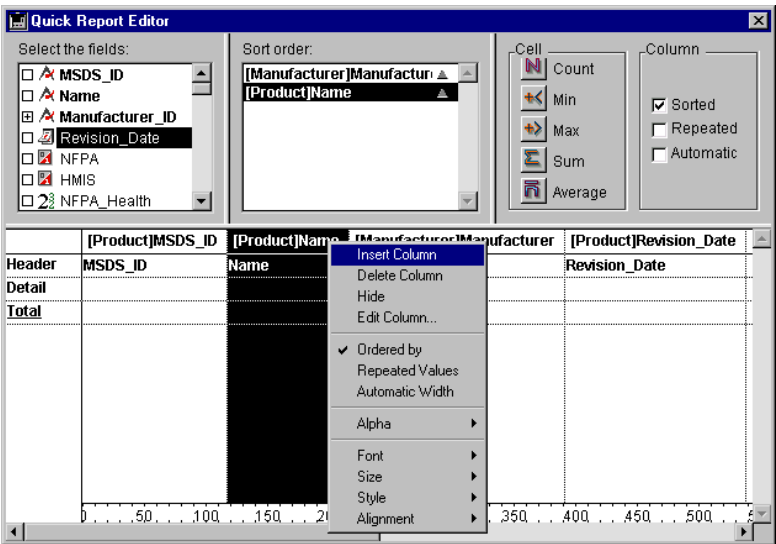
You can insert a column in a Quick Report.

To insert a column:

1. **Select a column**
2. **Choose *Insert Column* from the *Edit* menu, or hold down the mouse button to display the Quick Report *pop-up menu* and choose *Insert Column***



## The Quick Report Editor (Cont'd)



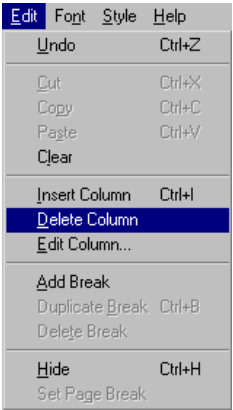
MSDSpro inserts a blank column to the left of the column you selected. You can then assign a field to the empty column by dragging a field name to it. Or, you can choose to assign a formula to the column. For information on assigning a formula to a column, see *Adding Formulas to the Report* later in this section.

### Deleting Columns

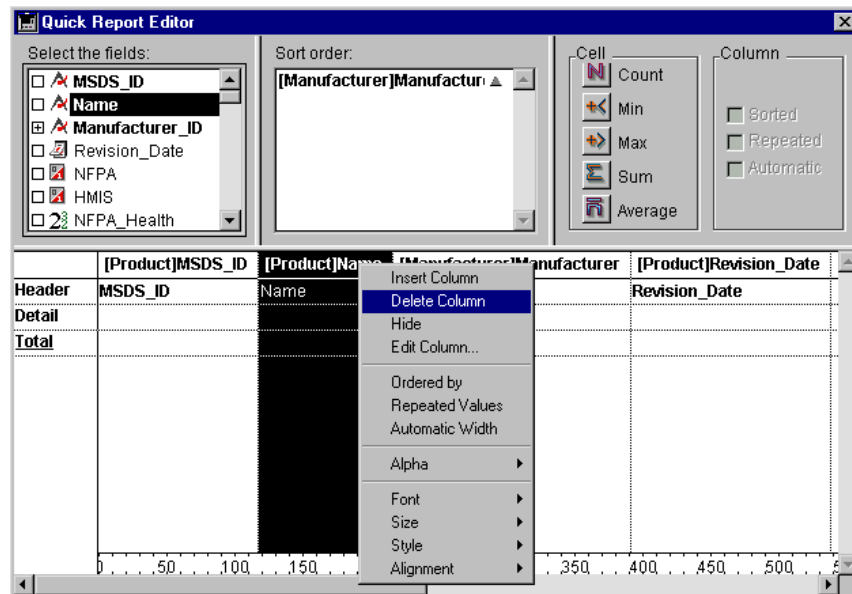
As you specify fields for your Quick Report, you may want to remove some columns so that they can be placed elsewhere. You also might want to delete the column from the report.

To delete a column:

1. **Select the column you want to delete**
2. **Choose *Delete Column* from the *Edit* menu, or hold down the right mouse button to display the Quick Report *pop-up menu* and choose *Delete Column***



## The Quick Report Editor (Cont'd)



MSDSpro removes the selected column from the Quick Report layout.

### Replacing Columns

You can replace a column in the Quick Report by dragging another field over it. You can also replace a field with a formula.

To replace a column:

1. **Drag a field from the Fields area to the column you want to replace, or select the column you want to replace and choose *Edit Column...* from the *Edit* menu**

When you print the Quick Report, MSDSpro prints the results of the formula for each record that appears in the Detail row.

See *Adding Formulas to the Report* later in this section for information on adding a formula to a Quick Report.

### Sizing Columns

By default, the *Quick Report editor* sizes columns automatically (as reflected in the Automatic Width check box). It sizes each column based on the maximum length of data displayed in the column and any labels typed into the column. The *Quick Report editor* sizes columns at the time the report is printed.

To view the widths of each column, preview the report to the screen. See *Printing the Quick Report* later in this section for more information about previewing the report.

## The Quick Report Editor (Cont'd)

Because the Auto Column Width check box will change the width of a column based on the maximum width of data in the records being printed, selecting different records can change the size of the columns.

You can resize a column manually after turning off the Auto Column Width check box. When a column is set manually, text in the column wraps within the specified area. Print speed may also be much faster because the *Quick Report editor* will not have to calculate the maximum width of each record value being printed.

To resize a column manually:

1. **Select the column you want to resize**
2. **Deselect the Auto Column Width check box either in the Column Properties or in the Quick Report *pop-up menu* for the column**
3. **Move the pointer over the column indicator in the column header to change the pointer into a column width cursor**
4. **Drag the column indicator to the left or right to size the column**

### Adding Formulas to a Quick Report

You can add a formula to a column in a Quick Report. For example, you can add a formula that calculates Inventory quantities from a quantity field.

To add a formula:

1. **Insert an empty column or click an existing column and choose *Edit Column...* from the *Edit menu*, or hold down the mouse button to display the Quick Report *pop-up menu* and choose *Edit Column...***

MSDSpro displays the *Formula editor* where you can build a formula. If you selected an existing column, the formula you create will replace the previous contents of the column.

2. **Build the formula by clicking fields, keywords, and commands and entering values. To save the formula as a disk file that you can recall and use in another column or in another report, click the **SAVE** button and enter a filename in the *Save File* window**

For more information on using the *Formula editor*, refer to *The Formula Editor* in *Database Conventions*.

## The Quick Report Editor (Cont'd)

### 3. Click OK to assign the formula to the column

MSDSpro adds a new label to the column that identifies it as a formula. You can relabel the column by typing a label into the header cell for that column. Formulas are labeled C1 through Cn. The labels are the names of variables that contain the column's value. You can use these variables in other formulas.

### Sorting Records and Creating Breaks

An important feature of the *Quick Report editor* is the ability to sort the records in your report. You sort records for two reasons:

- To view records in a particular order
- To create groups of records and Break areas in the report for the purpose of reporting summary calculations for groups

See the section *Setting Break Levels* later in this section for information on summary calculations.

### Specifying a Sort Order

After you specify the columns for your report, you can specify a sort order. You set a sort order by selecting the column to sort, and then set the Sorted property. For example, if you wanted to sort the records of Inventory by the Storage\_Location field, you would select the Sorted property for the Storage\_Location column.

You can also sort on a formula by selecting the column that contains the formula and then clicking the Sorted check box or choosing *Sorted* from the Quick Report *pop-up menu* for that column. See *Adding Formulas to the Report* earlier in this section for more information on adding formulas to Quick Reports.

To specify the sort order using the Sorted check box:

1. **Select the column that contains the field or formula you want to specify as the first sort level**
2. **Click the Sorted check box**

To specify the sort order by dragging:

1. **Drag a field from the Fields list to the Sort Order list**

If the field is not already in the Quick Report design, MSDSpro adds it as the last field in the design.

## The Quick Report Editor (Cont'd)

To specify a sort order using the Quick Report *pop-up menu*:

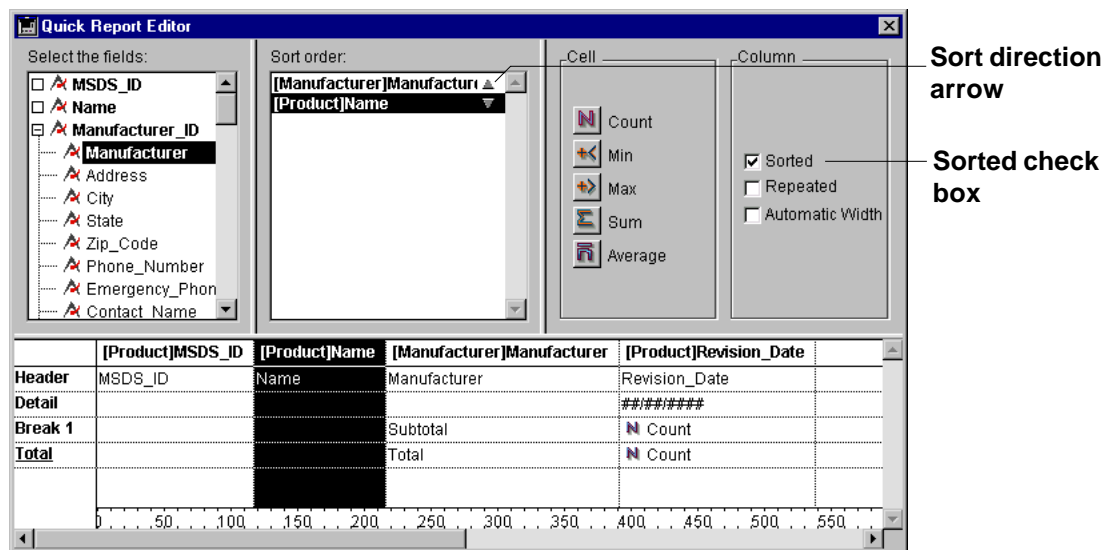
1. Hold down the right mouse button on the column header belonging to the column to sort

The Quick Report *pop-up menu* appears.

2. Choose **Sorted** from the *pop-up menu*

MSDSpro displays the name of the field in the Sort list. To the right of the name is an arrow, indicating an ascending sort order. By default, all sorts are performed in ascending sort order.

3. If necessary, click the sort direction arrow to sort the column in descending order



4. If desired, select additional fields or formula columns and add the Sorted property using either the Sorted check box or *pop-up menu* command

You can specify ascending or descending sort order for any additional fields or formulas you specify.

When you specify multiple sort levels, MSDSpro sorts the records on the first field in the Sort field list, then on other fields in the order that they appear in the list. For example, if you specify the Manufacturer field as the primary sort field and Product Name as the secondary sort field, your design might look like the Quick Report design shown above.

## The Quick Report Editor (Cont'd)

To change the level of a Sort field:

1. **Drag the name of a field or formula up or down within the sort list to the desired sort level**

You can delete any field or formula from the Sort list.

To delete a field or formula from the sort order:

1. **Select the column and deselect the Sorted check box, or hold down the right mouse button on the column header to display the Quick Report *pop-up menu* and deselect the *Sorted* menu command**

MSDSpro removes the field or formula in the Sort field list. It does not delete the column itself from the report. When you print the report, MSDSpro will no longer use that field or formula to sort the records.

### Setting Break Levels

In a Quick Report, you set Break levels to separate or “break” records into groups according to values in one or more sort fields. A Break area is printed at each break level. You can print summary calculations in the Break area. The summary calculations - sum, average, minimum, maximum, and count - are calculated for each group of records.

Break levels are determined by the sort levels and Break rows. For example, if you tell MSDSpro to sort records by `Storage_Location` and create a Break row, MSDSpro inserts a break between each group of records that have the same `Storage_Location`.

After you add a Break row to the Quick Report, you can request summary calculations on each break. For example, you can insert a summary calculation in a Break row to display Count subtotals for each `Storage_Location`. Refer to “Adding Summary Calculations” later in this chapter for more information on adding summary calculations to Break and Total rows.

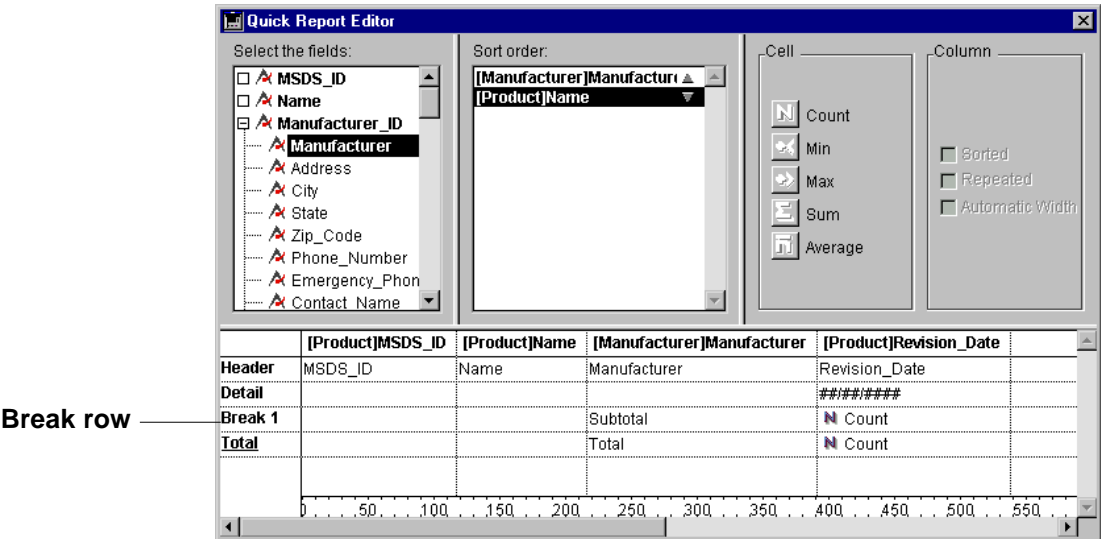
To insert a Break row:

1. **Choose *Add Break* from the *Edit menu*, or hold down the right mouse button on the Total row label in the Row label bar and choose the *Duplicate Break* menu command**



## The Quick Report Editor (Cont'd)

MSDSpro adds a Break row. The figure shows a Break row in a quick report design:



### 2. If desired, add additional Break rows by repeating step 1

There should be at least as many sort levels as Break levels.

MSDSpro adds a sequential number to each new Break label in the row label bar, for example, Break1, Break2, Break3, and so forth.

### Using the Values of Break Fields in Labels

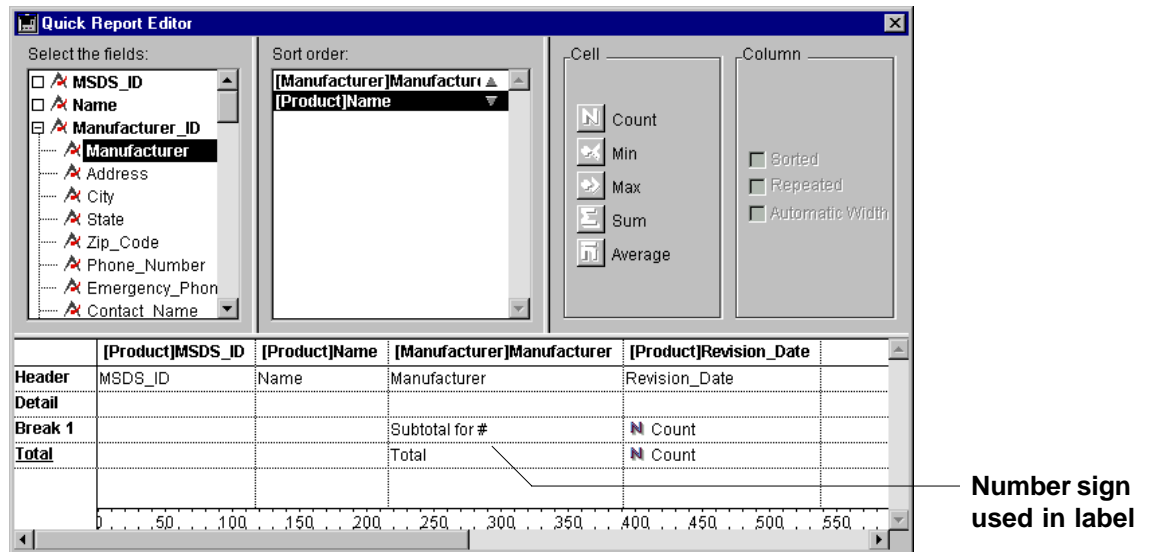
You can improve the appearance and comprehensibility of your reports by labeling each Break row using the value of the Break field.

To request that the value of a Break field be printed in a label placed in the Break area, use the number sign (#) in the label. For example, the text "Subtotal for #" will insert the Storage\_Location (in this case, the value of the Storage\_Location field) in place of the number sign when the report is printed.

The number sign does not need to be placed in the same column as the Break field. It will display the value of the Break field in any cell in the Break row.

## The Quick Report Editor (Cont'd)

The figure below illustrates the use of the number sign in a label in the Break row:



### Adding Summary Calculations

Summary calculations on the contents of fields and formulas can be added to each Break row and to the Totals row.

The check boxes in the Cell area of the *Quick Report editor* identify the summary calculation options available for quick reports. The following types of summary calculations are available.

- **Sum:** Totals the values in the report or Break.
- **Minimum:** Displays the lowest value in the report or Break.
- **Maximum:** Displays the highest value in the report or Break.
- **Average:** Calculates the average of the values in the report or Break.
- **Count:** Calculates the number of records in the report or Break.

These options also appear in the Quick Report *pop-up menu* for cells in the Break and Total rows.

When you place a summary calculation in the Totals row, the calculation is done for all records in the report. If you place the summary calculation in a Break row, the calculation is done for the records in the Break.

To add a summary calculation:

## The Quick Report Editor (Cont'd)

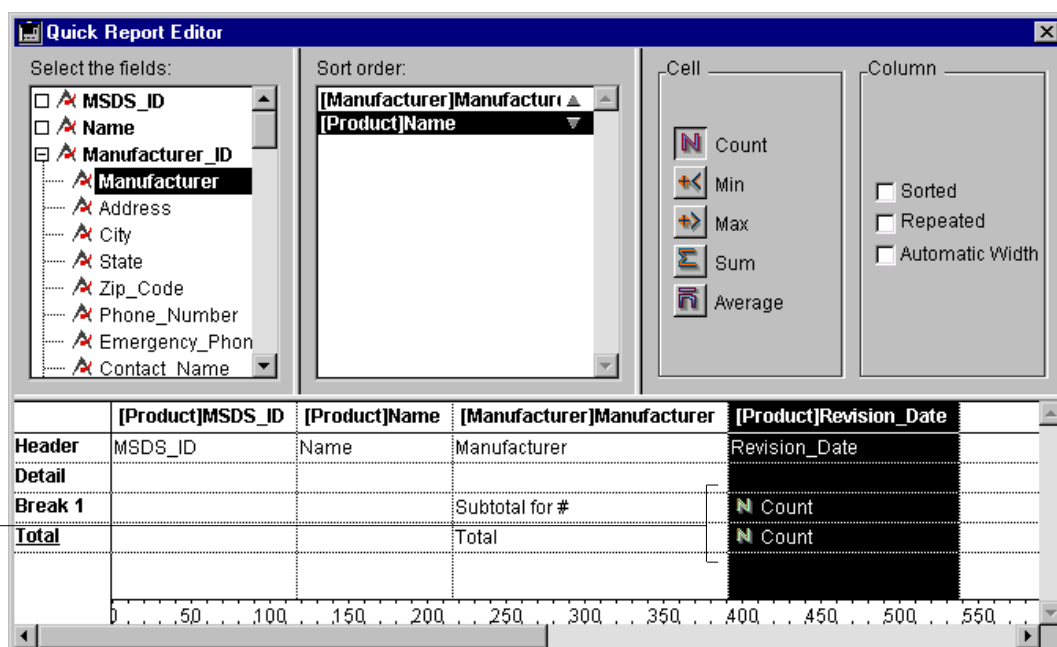
1. **Select a cell in a Break row or in the Totals row where you want to insert the summary calculation**

The Sum, Minimum, Maximum, and Average calculations work only on a numeric field or formula.

2. **Click as many summary calculation check boxes as you like, or hold down the mouse button and choose the desired summary calculations from the Quick Report *pop-up menu* for cells**

MSDSpro displays a calculation icon in the selected cell for each type of summary calculation you request. The figure below shows a Count icon in the Break 1 and Total rows.

Calculation  
icons in Break  
and Total rows



If you add more than one summary calculation to a cell, MSDSpro stacks the calculation icons on top of each other.

## The Quick Report Editor (Cont'd)

### Displaying Repeated Values for Break Columns

In a report with Breaks, the columns which are used to group records so that summary calculations can be done are called *Break columns*. In the report shown below, the *Storage\_Location* field is a Break column since the records in the report are grouped by *Storage\_Location*.

When a report like this is printed, the values for the Break column are printed only once per Break. In other words, a *Storage\_Location* is printed only for the first record in the group and is not repeated until the *Storage\_Location* changes.

| Product Name                  | Storage_Location           | Revision_Date |
|-------------------------------|----------------------------|---------------|
| 3M BRAND TYPE 409 TONER (N-P) | Blue Room                  | 6/19/91       |
| RED FLUORESCENT PAINT, 7201   |                            | 9/2/87        |
|                               | Total for Blue Room        | 2             |
| ARMOR ALL PROTECTANT          | Broom Closet               | 9/6/94        |
| SOAP & SCUM REMOVER           |                            | 1/1/91        |
|                               | Total for Broom Closet     | 2             |
| ACETONE                       | Chemical Storage           | 4/5/94        |
|                               |                            | 4/5/94        |
|                               | Total for Chemical Storage | 2             |
| FLOOR WAX - PARADE LIQUID     | Cleaning Room              | 1/1/94        |
|                               | Total for Cleaning Room    | 1             |

Nonrepeating  
Break values

In some cases you may want to repeat the values for the Break columns so that they appear for every record in the Break area. To do so, select the Repeated Values column property. You can do so either by clicking the Repeated Values check box in the Column Properties area or by choosing the *Repeated Values* menu command in the Quick Reports *pop-up menu* for that column.

To display repeated values for fields in Break columns, follow these steps:

1. **Select the Break column by clicking above the Header row for that column and click the Repeated Values check box, or hold down the mouse button on the Header row of the Break column and choose *Repeated Values* from the Quick Reports *pop-up menu***

The following figure shows the report at the top of this page after the Repeated Values check box has been checked for the *Storage\_Location* column:

| Product Name                  | Storage_Location           | Revision_Date |
|-------------------------------|----------------------------|---------------|
| 3M BRAND TYPE 409 TONER (N-P) | Blue Room                  | 6/19/91       |
| RED FLUORESCENT PAINT, 7201   | Blue Room                  | 9/2/87        |
|                               | Total for Blue Room        | 2             |
| ARMOR ALL PROTECTANT          | Broom Closet               | 9/6/94        |
| SOAP & SCUM REMOVER           | Broom Closet               | 1/1/91        |
|                               | Total for Broom Closet     | 2             |
| ACETONE                       | Chemical Storage           | 4/5/94        |
|                               | Chemical Storage           | 4/5/94        |
|                               | Total for Chemical Storage | 2             |
| FLOOR WAX - PARADE LIQUID     | Cleaning Room              | 1/1/94        |
|                               | Total for Cleaning Room    | 1             |

## The Quick Report Editor (Cont'd)

### Setting Display Formats

You can specify display formats for columns that contain Numeric, Alphanumeric, or Boolean data. For example, if you are displaying salaries in a column, you can add a numeric format to the Detail cell for the quantity field. If your report includes Alpha fields such as a telephone number or Social Security number, you can use an Alpha format. If your report displays values for a Boolean field such as true/false or yes/no, you can use a Boolean format.

This section explains how to use Numeric, Alpha, and Boolean formats. It then shows you how to specify a format for a particular field by entering the format into the Quick Report layout.

### Numeric Formats

The following format places a dollar sign to the left of the number and allows up to 6 digits:

`$###,###`

This format can display dollar amounts up to \$999,999.

### Alpha Formats

You can use an Alpha format for fields that contain string information. For example, social security number or telephone number fields can be formatted with an Alpha format.

The following format would be used to format Social Security numbers:

`###-##-####`

### Boolean Formats

You can specify a Boolean format for fields that contain information which can be evaluated as either TRUE or FALSE or as only one of two values (e.g. Yes or No).

If you do not apply a display format to a Boolean field, the values are displayed as either TRUE or FALSE.

To substitute different values for TRUE and FALSE, separate the two values you want to display with a semicolon. The example below shows a display format for a field in an invoicing database.

`Paid;Unpaid`

### Entering the Display Format for a field

To enter a display format for a Numeric, Alpha, or Boolean field:

1. Click twice in the Detail cell for a Numeric, Alpha, or Boolean column

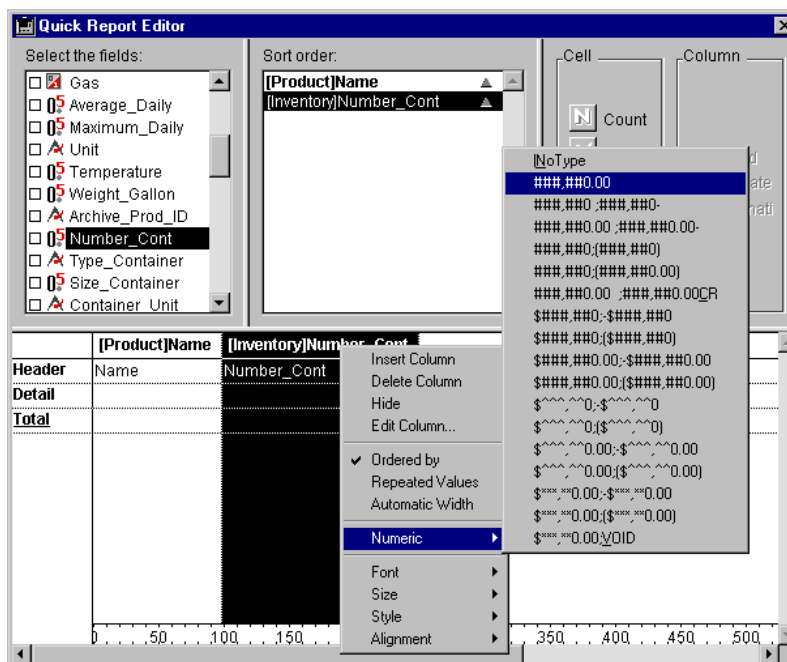
## The Quick Report Editor (Cont'd)

### 2. Type a display format

If you have also requested summary calculations for that column, the format specified in the Detail cell will automatically be applied to the summary calculations. The count is always displayed as an integer without formatting symbols such as the dollar sign. Different formats can be applied to different columns in the report.

To enter a display format from the Quick Report *pop-up menu*:

1. Position the pointer over the Detail cell for a column and hold down the right mouse button and choose a display format from the *hierarchical menu*



The *hierarchical menu* will show display formats that are appropriate for the data type of the column. For example, if the field was an Alpha format, the menu command would be "Alpha" instead of "Numeric" and the submenu would list only Alpha formats.

After you make your selection, you can edit the format normally.

If you have also requested summary calculations for that column, the format specified in the Detail cell will automatically be applied to the summary calculations. Regardless of the display format, the count is always displayed as an integer without formatting symbols such as the dollar sign.

Different formats can be applied to different columns in the report.

# The Quick Report Editor (Cont'd)

## Hiding Rows and Columns

MSDSpro lets you hide rows or columns when printing a Quick Report. If desired, you can show a hidden column or row.

Hiding rows is useful, for example, when you want the report to include only summary calculations. For example, hide the Detail row if you want to display only the summary calculations that appear in the Totals and Break rows. You can also use this feature to hide a Break row or the Totals row.

You can hide a column if you need to use the column as a sort column, but do not want the report to display the column.

You can hide a row using either a Quick Report menu command or the Quick Reports *pop-up menu*.

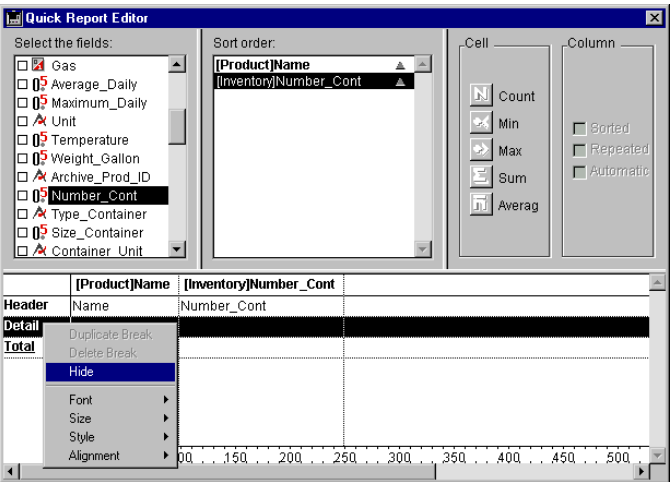
To hide a row using the menu command:

- 1. **Select the row you want to hide**
- 2. **Choose *Hide* from the *Edit* menu**

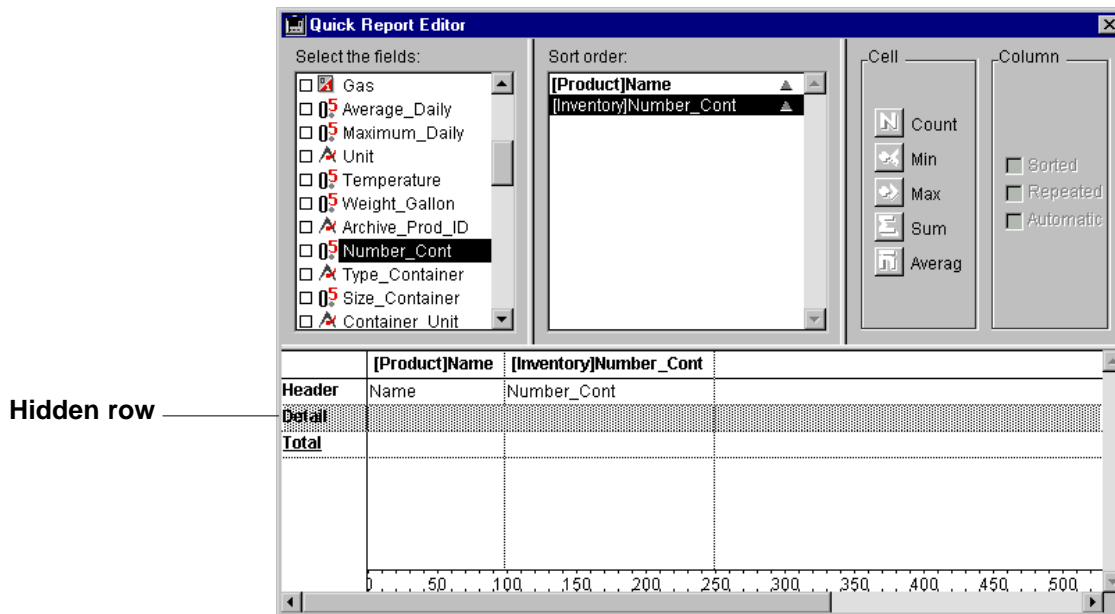
To hide a row using the *pop-up menu*:

- 1. **Hold down the right mouse button over the row label in the Row label bar**  
  
The Quick Reports *pop-up menu* appears.
- 2. **Choose *Hide* from the *pop-up menu***

MSDSpro displays the row in gray to remind you that the row will not appear when you print or preview the quick report.



## The Quick Report Editor (Cont'd)



You can also use a menu command or the Quick Reports *pop-up menu* to hide a column.

To hide a column using the menu command:

1. **Select the column you want to hide**
2. **Choose *Hide* from the *Edit menu***

To hide a column using the *pop-up menu*:

1. **Hold down the right mouse button over the column header**

The Quick Reports *pop-up menu* appears.

2. **Choose *Hide* from the *pop-up menu***

MSDSpro displays the column in gray to remind you that the row will not appear when you print or preview the quick report.

### Showing a Hidden Row or Column

When a row or column is hidden, the *Hide* menu command in the *Edit menu* and Quick Report pop-up menu becomes *Show*. You can display a hidden row or column choosing *Show* from either the *Edit* or *pop-up menu*. When you do so, the row or column is displayed normally in the Quick Report area.



## The Quick Report Editor (Cont'd)

### Adding Page Headers and Footers

Before printing a Quick Report, you can add page headers and footers. You specify page headers and footers in the *Headers and Footers* window. Use this dialog box to do the following:

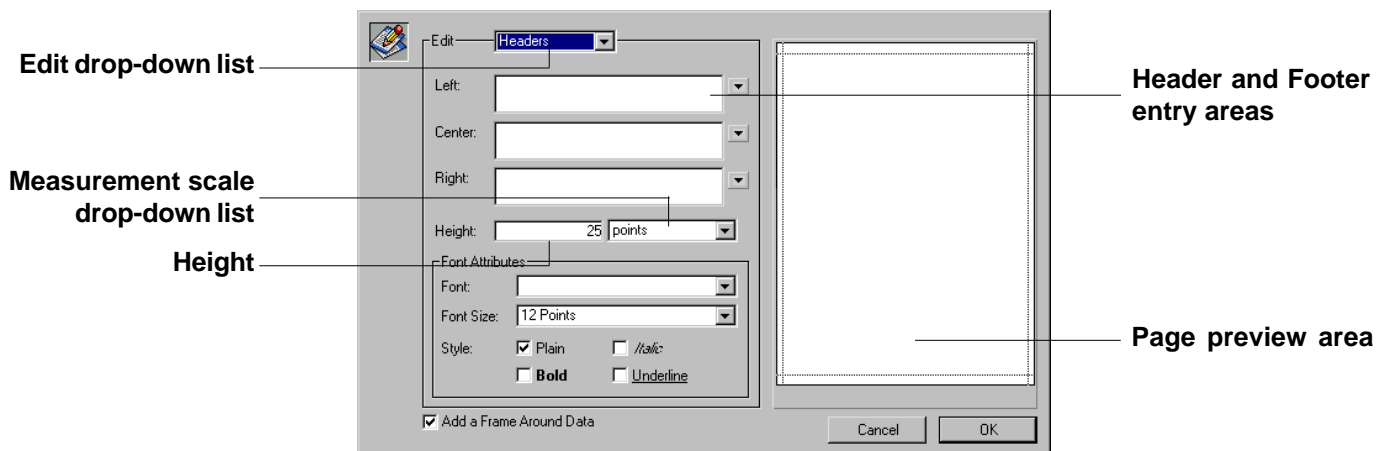
- Add page header and footer text
- Specify the size of the page header and footer areas
- Specify fonts, font sizes, and font styles for page header and footer text
- Insert codes that add page numbers and the date and time to your reports

Page headers can only be specified when printing to a printer. See *Printing a Quick Report* later in this section for more information about alternate output devices.

To add page headers and footers:

1. Choose *Headers and Footers* from the *File* menu

The *Headers and Footers* window appears.



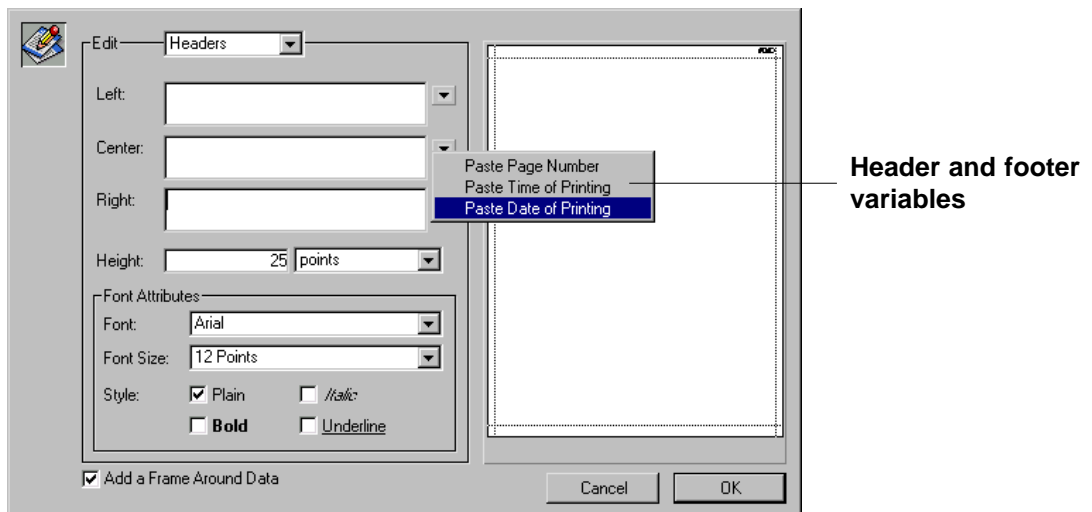
The *Header and Footers* window lets you specify both headers and footers from the same screen. You use the Edit drop-down list to specify either the header or footer.

2. Choose *Header or Footer* from the *Edit* menu
3. Enter the header or footer height in the *Height* area

When you first enter the dialog box, the header and footer are set to 25 pixels each. You can change values for the height and can use the measurement scale to enter values in inches or centimeters. As you enter the header and footer height, the dotted lines on the page preview area change to indicate the size of the header and footer as they will appear on the printed report.

## The Quick Report Editor (Cont'd)

### 4. Select an entry area and type the header or footer text



To the right of each entry area is a *pop-up menu* that lets you insert variables into the entry area.

You can insert the current Page Number, Time of Printing, or Date of Printing.

To insert a variable, choose it from the *pop-up menu*. MSDSpro inserts the variable in the entry area at the insertion point. You can combine variables with text.

### Specifying Font, Font Size, Justification, and Style

You can specify different fonts, font sizes, justification, and styles for page headers and footers.

To specify font attributes:

1. **Choose a font and font size from the drop-down lists and click one or more Style check boxes**

Specified attributes are applied to all three entry areas. You cannot apply different font attributes to different areas of the header or footer. Some Style combinations are not valid. For example, you can choose Bold and Italic, but you cannot choose both Plain and Bold.

## The Quick Report Editor (Cont'd)

### Printing a Quick Report

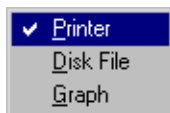
After you have completed your report design, you can print the Quick Report. You can print a Quick Report to a variety of output devices:

- **Printer**
- **Disk File**
- **Graph**

To select an output device:

1. **Choose *Print Destination* from the *File menu***

The *Print Destination hierarchical menu* contains three items:



#### Printer

This option uses the default printer you have chosen. You can print to a printer without using the *Print Destination* item by choosing *Print* from the *File menu*. If you are printing to a printer, you can preview the report before printing it.

To print to a printer:

1. **Choose *Print* from the *File menu***
2. **Click the OK button and follow the standard MSDSpro procedure for previewing and printing your report**
3. **Choose the settings that are appropriate for your report and click the OK button**

#### Disk File

This option sends your Quick Report to a disk file that you can open and modify with other applications, including text editors and spreadsheets. This option exports the records in the Quick Report to a text file.

When you use this option, MSDSpro automatically uses the column headings as the first “record” that is exported.

## The Quick Report Editor (Cont'd)

To print to a disk file:

1. Choose **Disk File** from the **Print Destination hierarchical menu**
2. Choose **Print** from the **File menu**

MSDSpro displays a standard *Create File* window to enter a filename for the new file.

3. Enter a filename and click the **OK button**

MSDSpro displays a dialog box that keeps you informed of the progress of the operation. Click the **STOP PRINTING** button to cancel the operation.

After the report is printed to a file, MSDSpro returns you to the *Quick Report editor*. Remember to change the output device if you want to resume sending a Quick Report to a standard printer.

### Graph

This option directs the report to a 4D Chart, MSDSpro's plug-in for plotting data. When you choose the Graph item in the Print Destination hierarchical menu, your report is presented as a graph rather than in tabular form. 4D Chart uses only the summary calculations and labels in the Break row. It uses the leftmost non-numeric column for the Values axis (the horizontal axis).

To use the graph feature, the report should do the following:

- Include from one to five numeric fields or formulas. These columns will be assigned to the values axis in the graph.
- Use one type of summary calculation per numeric field.

For example, if you want to graph average quantities by Storage\_Location, you should create a Quick Report with two columns, Storage\_Location and Number\_Containers. Use the Average summary calculation for Number\_Containers.

## The Quick Report Editor (Cont'd)

Quick Report Editor

Select the fields:

- ☒ Storage\_Loc\_ID
- ☒ MSDS\_ID
- ☐ Start\_Date
- ☐ End\_Date
- ☐ Container\_Cd
- ☐ Temperature\_Cd
- ☐ Pressure\_Cd
- ☐ Method\_of\_Use
- ☐ Solid
- ☐ Liquid
- ☐ Gas

Sort order:

- [Product]Name
- [Inventory]Number

Cell:

- Count
- Min
- Max
- Sum
- Average

Column:

- ☒ Sorted
- ☐ Repeated
- ☐ Automatic

|         | [Product]Name | [Inventory]Number |
|---------|---------------|-------------------|
| Header  | Name          | Number_Count      |
| Detail  |               |                   |
| Break 1 |               | Average           |
| Total   |               |                   |

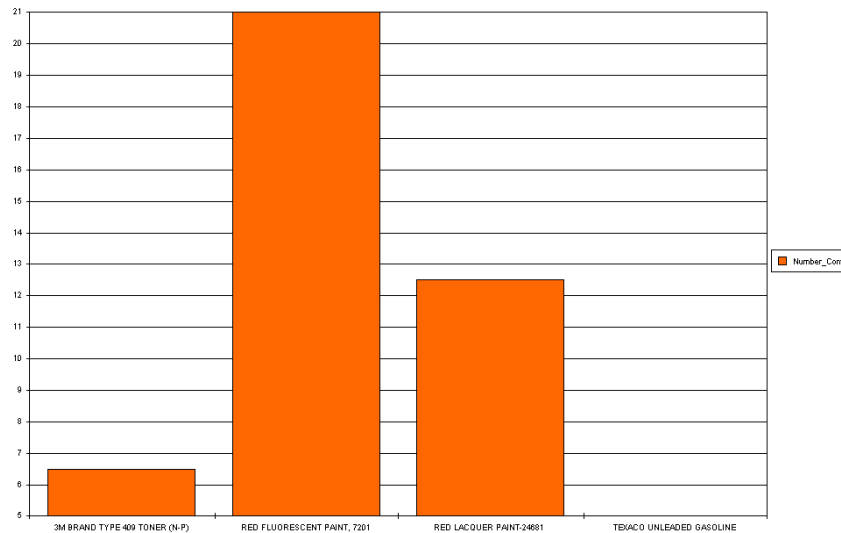
Value to be graphed

To print to a graph:

1. Choose **Graph** from the **Print Destination hierarchical menu**
2. Choose **Print** from the **File menu**

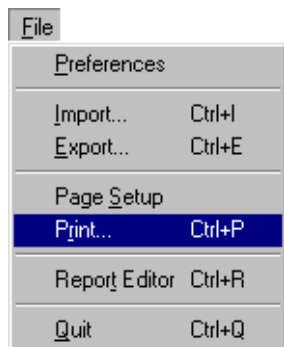
MSDSpro graphs your data as a column graph.

The following figure shows the graph produced from the Quick Report design shown on the previous page:



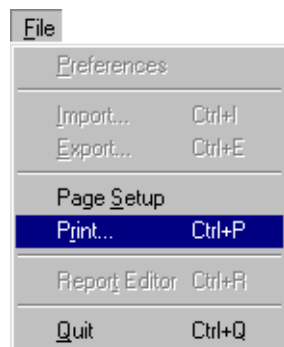
## Printing From Output Forms

To print the current selection of records shown in the *Output form* of the current table, select *Print* from the *File menu*.



## Printing From Data Entry Forms

To print the current record that is shown in the *Data Entry form*, select *Print* from the *File menu*.



## Importing Data

The import of external data into MSDSpro is a simple process. MSDSpro automatically removes extraneous characters from the data being imported (control characters, escape codes, and quotes).

To import data into MSDSpro:

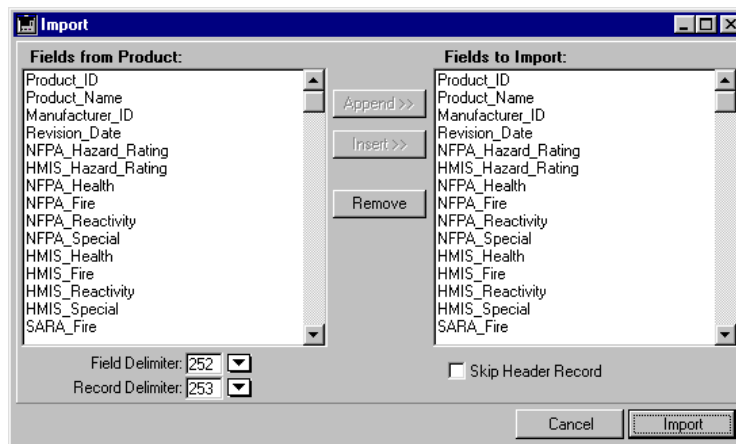
1. Select *Import/Export* from the *Admin Control Panel Special Functions tab*

## Importing Data (Cont'd)

### 2. Select the Import Table

The *Output form* will display all records for the selected table.

### 3. Select *Import Data* from the *File menu* to display the *Import editor*, as shown:



### 4. Select from the Fields List on the left side to APPEND or INSERT into the Fields to Import list on the right side

The order shown in Fields to Import must be the same order that the data columns are stored in the file to be imported.

### 5. Select fields that need to be removed from the Fields to Import, and click REMOVE

### 6. Select the proper field and record delimiters

If you are importing data that contains free-flowing text fields (like Notes fields in the Product table, or the Document field), you must use a non-standard delimiter in the file to import. The reason is that a Tab (ASCII Code 9) or Return (ASCII Code 13) could be typed in the free-flowing text fields, but are sometimes also used as field and record delimiters. You must choose delimiters that were used to create the file to import, and will not be contained in the data itself.

### 7. Click Skip Header Record if header information exists in the data being imported

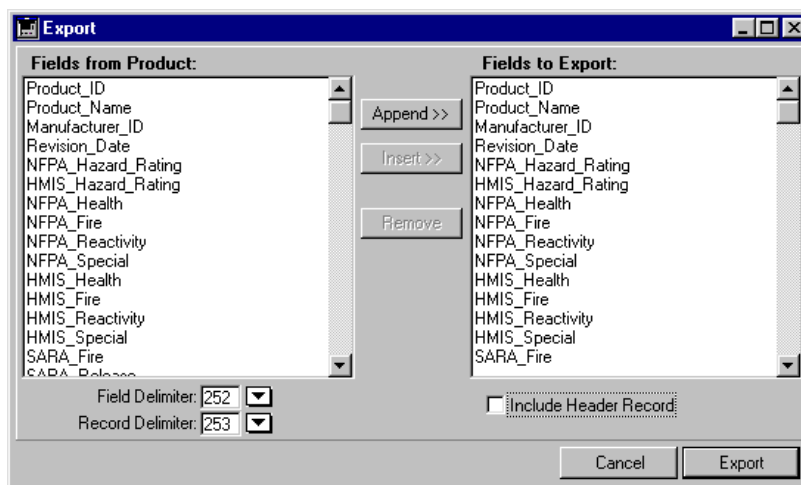
### 8. Click IMPORT to import the data from disk file

## Exporting Data

The exporting of data from MSDSpro is a simple process. To export data from MSDSpro:

1. Select **Import/Export** from the **Admin Control Panel Special Functions** tab
2. Select the **Export Table**

The *Output form* will display all records for the selected table.
3. Search for the records that will be exported using the **Search editor**
4. Sort the records in the order required in the final disk file using the **Sort editor**
5. Select **Export Data** from the **File menu** to display the **Export editor**, as shown:



6. Select from the **Fields List** on the left side to **APPEND** or **INSERT** into the **Fields to Export** list on the right side

The order shown in **Fields to Export** will be the same order when they are exported.
7. Select fields that need to be removed from the **Fields to Export**, and click **REMOVE**
8. Select the proper field and record delimiters

If you are exporting data that contains free-flowing text fields (like Notes fields in the Product table, or the Document field), select Special from the choice list of available delimiters, and be sure to not use Tab (ASCII Code 9) or Return (ASCII Code 13) because they may be contained in the data itself and would not be useful as delimiters.



## Exporting Data (Cont'd)

9. Click **Include Header Record** if you want to include headers in the exported data

10. Click **EXPORT** to export the data to a new file

## Apply Formula

You do a global update when you want to make a special change to a group of records or to automate changes to a database that would otherwise be tedious and time-consuming. For example, you would perform a global update if you wanted to do the following:

- **Change all End Dates in the Inventory table to a certain date**
- **Format a Numeric or Alpha field**

The global update is done by “applying” a formula to the current selection of records. That is, the formula is used to make the change to each record in the current selection.

Here are two example formulas and explanations of the functions they perform:

**End Date:= !12/31/97!**

This formula applies the date of 12/31/97 (contained within “!” on each side of the date) to the End Date field. The !12/31/97! format is how MSDSpro recognizes the value specified as a date value. A null date would be typed as !00/00/00!, for example.

**Product Name := Uppercase (Product Name)**

This formula uses a built-in function to make the contents of the Product Name field uppercase. It ensures uniformity in the way Product Name appears in labels and reports.

To perform a global update, you use the *Formula editor* to write a formula that is applied to each record in the current selection in the current table only.

You use MSDSpro’s built-in commands to create formulas.

## The Formula Editor

The *Formula editor* provides many shortcuts for writing formulas. You can click field names, operators, and commands to add them to the formula.

The *Formula editor* contains the following areas:

- **Editing area:** This area displays the formula as you build and edit it. You create the formula in this area.

## The Formula Editor (Cont'd)

- **Keywords list:** This area contains a list of operators used to build a formula.
- **Fields list:** This area displays the names of the fields and layouts in the current table. The cycle arrows at the top of the fields list allow you to view the contents of other tables in the database. Click between the cycle arrows to display a complete list of all table names to select from.
- **Routines list:** This area contains an alphabetical listing of all MSDSpro built-in commands and functions.
- **Buttons area:** This area contains buttons for saving your formula, loading other formulas from disk, canceling an editing session, and applying the formula.

You build a formula by clicking keywords, field names, and commands. When you click an item, it automatically appears in the Editing area, where you can modify it with standard cut, copy, and paste techniques. You can also type directly into the Editing area. A formula can be only one logical line long. You cannot press Return and type another line.

To perform a global update to all records in the current selection:

1. **Set the current selection to the records to be updated using searches or *Show Subset* from the *Output form* of the current table**
2. **Choose *Apply Formula* from the *Selection menu***
3. **Use the *Formula editor* to build the formula. Or, click the **LOAD** button to retrieve an existing formula from disk**

If you click the Load button, MSDSpro displays an *Open File* window and asks you to select a file. When you load a file, it replaces any formula that currently appears in the Formula editor. After you load a formula, you can modify it in the editing area.

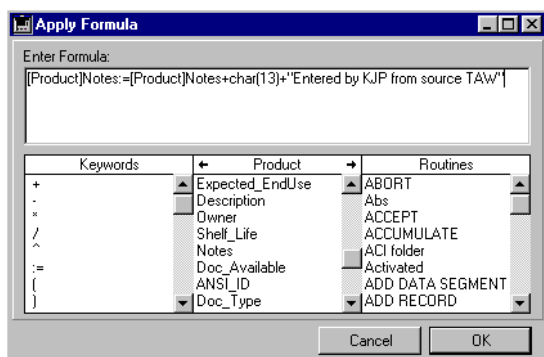
4. **If you want to save a new formula in a disk file, click the **SAVE** button**

MSDSpro displays a *Save File* window and asks you to name a file to store the new formula.

## The Formula Editor (Cont'd)

### 5. Click the OK button to apply the formula to the current selection

MSDSpro closes the editor and applies the formula to the records in the current selection. Click the **CANCEL** button to close the editor and return to the *Output form* without applying the formula.



The formula shown will append a carriage return (char(13) is the ASCII value of 13) and "Entered by KJP from Source TAW" to the existing contents of the Notes field in the the Product table, for each record in the current selection.

## The Find Function

The Find Function is used to search the MSDSpro database and/or the MSDSpro CD library for MSDSs. It is only available on those computers upon which MSDSpro has been installed. The Find Function is accessed by clicking on the Find button located on the floating toolbar. Clicking on the Find button brings up the Find MSDS dialog. The Find MSDS dialog consists of three tabs, the **Simple Search tab**, the **Complex Search tab**, and the **Location Criteria tab**.

**Simple Search Tab:** The **Simple Search tab** allows users of the Find Function to search either the MSDSpro database, the MSDSpro CD library, or both simultaneously. The **Simple Search tab** consists of the following components.

The screenshot shows the 'Find MSDS' dialog box with the 'Simple Search' tab selected. The dialog has a title bar with a close button. Below the title bar are three tabs: 'Simple Search', 'Complex Search', and 'Location Criteria'. To the right of the tabs is a checkbox labeled 'Include Library'. The main area contains a 'Search For' text box, followed by two radio buttons: 'All' (selected) and 'Either'. Below this is a 'Search Method' section with two radio buttons: 'Word begins with' (selected) and 'Word contains'. Underneath is a 'Search By' section with three radio buttons: 'Product Name' (selected), 'Manufacturer', and 'Ingredient CAS Number'. To the right of these is a checkbox labeled 'Sounds Like'. At the bottom left is the 'MSDSpro' logo. To its right is a checkbox labeled 'Include Products without documents'. Further right is a 'Limit' dropdown menu set to '1000'. On the far right are 'Cancel' and 'Search' buttons.

**Search Methods:** Search Methods defines how searching will occur. Search Methods available under the simple search tab include:

- **Word Begins With/Word Contains:** Controls whether the information being searched upon must match the beginning of a word or be contained within that word. Selecting “Word Begins With” and searching for “ace” will only return records in which “ace” is in the beginning of the field being searched. For example, if the search was performed on the Product Name field then the product “Acetone” would be returned but the product “Formace” would not.
- **Exclude/Include CD-ROM MSDS library:** Controls whether or not the MSDSpro CD library will be included in the search. If the checkbox is checked, the MSDSpro CD library will be included in the search.
- **Include products without documents:** Controls whether or not product records with no attached MSDS will be included in the search.

**NOTE:** Include products without documents is only available to users logged in as DBA.

## The Find Function (Cont'd)

- **Limit:** Sets the maximum number of search results that will be returned in a search. For example, if the limit pull down menu is set to 1000, then only the first 1000 matches to the information being searched upon will be returned, regardless of the total number of matches in the database.

**Search Criteria:** Search Criteria define which fields will be searched. Performing a search with the Search Criteria "Product Name" selected will return matches only to entries made in the Product Name field within the Product record. Search Criteria for performing a Simple Search include:

- **Product Name:** Searches the Product Name field. This field is found under the *Product tab* within the Product record.
- **Sounds Like:** Searches for product names that are phonetically similar to the search criteria.
- **Manufacturer:** Searches the Manufacturer Name field. This field is found under the *Product tab* within the Product record.
- **Ingredient CAS #:** Designates the Ingredient CAS # field as the field to be searched upon. This field is found under the *Ingredient tab* within the Product record.

**Complex Search tab:** The *Complex Search tab* allows users of the Find Function to perform much more specific searches. Whereas in the simple search mode a user can search on only one field at a time, under the *Complex Search tab* a user can search multiple fields simultaneously. For example, a user could search for product "acetone" made by manufacturer "Example Corporation" within a single search. The *Complex Search tab* is useful when significant information is known about a specific product to be searched upon and greatly reduces the number of search results the end user will have to look through in order to find the information desired.

The screenshot shows the "Find MSDS" dialog box with the "Simple Search" tab selected. The "Include Library" checkbox is checked. The "Product Name" field is empty. The "Manufacturer" field contains "johnson and johnson". The "MSDS ID" field is empty. Below the "Product Name" field, the "All" radio button is selected. Below the "Manufacturer" field, the "Begins with" radio button is selected. Below the "MSDS ID" field, the "Begins with" radio button is selected. The "Sounds Like" checkbox is unchecked. At the bottom, the "Include Products without documents" checkbox is unchecked, the "Limit" dropdown is set to "5000", and the "Search" button is highlighted.

## The Find Function (Cont'd)

**Search Methods:** Search Methods available under the *Complex Search tab* include:

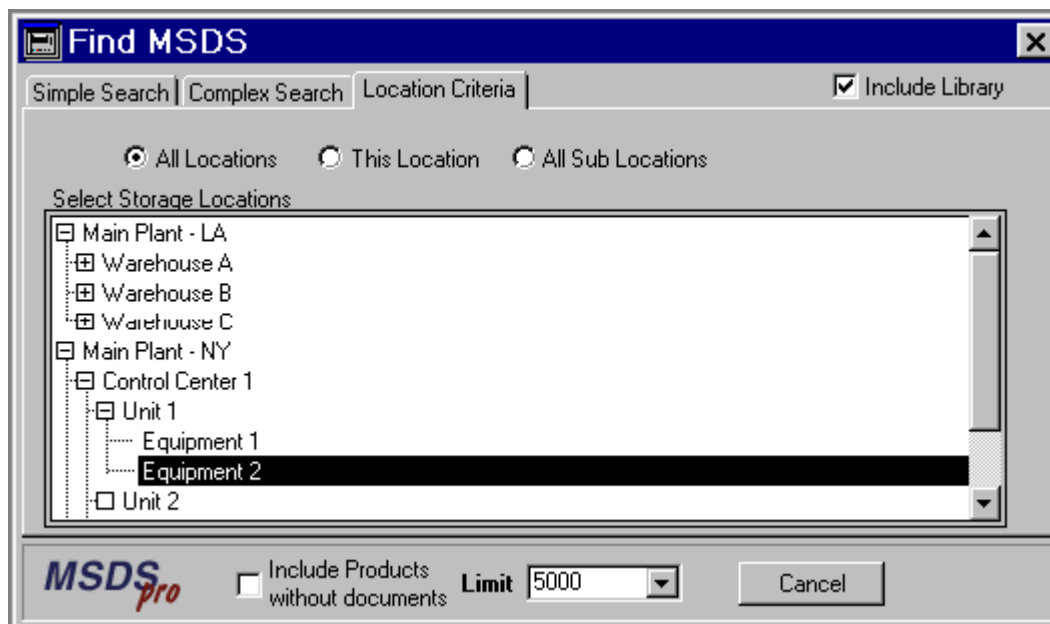
- **Word Begins With/Word Contains:** Controls whether the information being searched upon must match the beginning of a word or be contained within that word. Selecting “Word Begins With” and searching for “ace” will only return records in which “ace” is in the beginning of the field being searched. For example, if the search was performed on the Product Name field then the product “Acetone” would be returned but the product “Formace” would not.
- **All words/Either word:** Controls whether MSDSpro will try to match all the words or any word entered into the search field.
- **Exclude/Include CD-ROM MSDS library:** Controls whether or not the MSDSpro CD library will be included in the search. If the checkbox is checked, the MSDSpro CD library will be included in the search.
- **Include Products without documents:** Controls whether or not a product record that does not have an attached MSDS will be included in the search.
- **Limit:** Sets the maximum number of search results that will be returned in a search. If the limit is set to 1000, then only the first 1000 matches to the search criteria will be returned regardless of the total number of matches in the database.

**Search Criteria:** Search Criteria available under the *Complex Search tab* include:

- **Product Name:** Searches the Product Name field. This field is found under the Product tab within the Product Record.
- **Sounds Like:** Searches for words that sound similar to the search criteria.
- **Manufacturer:** Searches the Manufacturer Name field. This field is found under the Product tab within the Product Record.
- **MSDS ID:** Searches the MSDS ID field. This field is found under the *Product tab* within the Product Record.

## The Find Function (Cont'd)

**Location Criteria tab:** The **Location Criteria tab** allows users to search for MSDSs based on the location at which the product is stored. This tab is used when users not only want to find an MSDS but also want to know to which locations, if any, it has been assigned as inventory. The **Location Criteria tab** is only used to further refine the criteria under which either a simple or a complex search will be performed.



**Search Methods:** Search methods available under the **Location Criteria tab** include:

- **All Locations/This Location/All Sub Locations:** Controls which locations will be searched for MSDSs matching the information searched upon. Choosing “This location” will only search the location selected but will not search any sublocations of that location. Choosing “All Sublocations” will search all the sublocations of the location selected.

# Data Access

Data Access allows access to the following tables/data entry areas within MSDSpro:

- Product Entry Wizard
- Products
- Manufacturers
- Locations
- Inventory
- Chemicals
- Phrase Library
- Dictionary
- Assets
- Users
- MSDS Requests

## Admin Control Panel

*Data Access areas are accessed from the Admin Control Panel.*





## Product Entry Wizard

The Product Entry Wizard allows the end user to add new product records to the MSDSpro database quickly and easily with basic information. When new product records are created using the Wizard, information can be added to the following fields within the Product record.

- **Document Type:** The document type defines what format the MSDS is in when it is attached to the Product record.
- **Product Name:** The name of the new product.
- **Synonym:** Additional names for the new product.
- **Manufacturer Name:** The name of the manufacturer for the new product.
- **Revision Date:** The date when changes were last made to the MSDS.
- **Date Entered:** The date the Product record was created.
- **Entered By:** The name of the person who entered the information into the Product record.
- **Inventory:** Inventory shows which products are stored at which locations.
- **MSDS:** The Material Safety Data Sheet for the product.
- **NFPA/HMIS Ratings:** Ratings assigned to the product by the National Fire Protection Association or the Hazardous Materials Identification System.

Only the Product Name and Manufacturer Name fields are required. The Wizard is accessed from the **Data Access** tab on the Admin Control Panel.

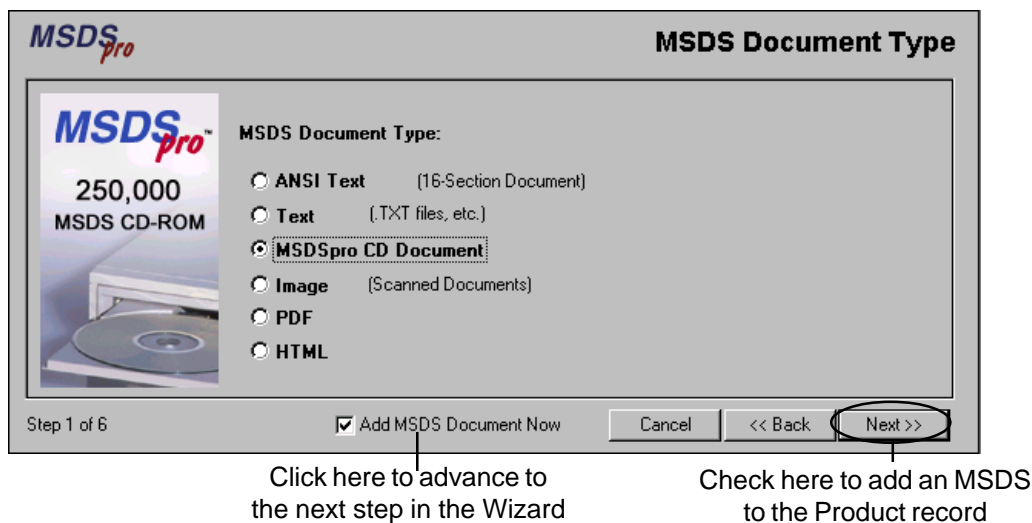


Click the **WIZARD** button to access the Product Entry Wizard

## Product Entry Wizard (cont'd)

The Wizard consists of six steps. To advance from each step, click the **NEXT** button. The Wizard is designed to be intuitive and easy to use. Fields for population are clearly marked. Buttons that govern functions have the actions written right on them. For example, to add a synonym click on the **ADD** button by the Synonym display in step 2 of the Wizard.

Step one of the Wizard is the *MSDS Document Type Entry form*. In this step, the user selects the appropriate MSDS document type.



- The ANSI TEXT selection is used when an MSDS is to be created manually. This is also known as Authoring.
- The TEXT selection allows the user to import and attach to the Product record MSDSs in plain text format. Text MSDSs are imported from the Internet, computer hard disk or Windows Clipboard.
- The MSDSpro CD DOCUMENT selection is used to attach MSDSs from the MSDSpro CD Library.
- The IMAGE selection is used when the MSDS is to be attached in an image format. MSDSs can be imported as images from the hard disk, a scanner or the Windows Clipboard.
- The PDF selection is used when the MSDS is in Adobe's Portable Document Format. PDF MSDSs are imported from the Internet or from the computer hard disk. It is also common practice to convert scanned images into PDFs.
- The HTML selection is used for importing MSDSs from the Internet or from the hard disk.
- The ADD MSDS DOCUMENT NOW checkbox controls whether or not the Wizard will attach an MSDS to the Product record.

## Product Entry Wizard (cont'd)

For MSDSpro CD documents, clicking on the **NEXT** button brings up the *Select a CD Product to Add Output form*. This form allows the user to search the MSDSpro CD library for a specific MSDS.

- The **Search For** field is where the product or manufacturer name to be searched for is entered.
- If more than one word is entered into the **Search For** field, the **All** or **Either** radio buttons become available. The **All** or **Either** radio buttons control whether search results must match every word entered in the **Search For** field or if search results can match any word entered in the **Search For** field.
- The **Method** radio buttons, **Word begins with** and **Word contains**, define how searching will occur. For example, the search method “**Word Contains**” tells MSDSpro to find only those records in the database or library that contain the word that was searched upon. Selecting “**Word Contains**” and searching for “**tone**” will only return records in which “**tone**” is in the field searched upon. If the search was performed on the **Product Name** field then the product “**Acetone**” would be returned but the product “**Acetylene**” would not.
- The **Field** radio buttons, **Product Name** and **Manufacturer Name**, define upon which field in the product record the search will be performed.
- The **Sounds Like** checkbox will return search results that sound similar to what was searched upon.

Search Criteria

Method radio buttons

Field radio buttons

All or Either radio buttons

Maximum number of search results

233 Records Found

View Previous Cancel Add

View an MSDS from the CD Library

Return to the previous screen

Cancel the search

Add the MSDS to the Product record

| MSDS # | CD Product Name                                 | Manufacturer                 | Rev Date   |
|--------|---|------------------------------|------------|
| BTYJJ  | 100% SOLID EPOXY TANK COATING WHITE BASE, 184E  | DEVORE COATINGS CO           | 03/12/1992 |
| BSLZL  | 12402 TRU-GLAZE-4 EPOXY GLASS COATING PART B -  | DEVORE & RAYNOLDS CO DIV GRC | 07/22/1991 |
| BSLZK  | 12449 TRU-GLAZE-4 EPOXY COATING PART A HIGH HIC | DEVORE & RAYNOLDS CO DIV GRC | 07/22/1991 |
| BSLZM  | 12602 TRU-GLAZE-4 EPOXY SEMI-GLOSS COATING PAI  | DEVORE & RAYNOLDS CO DIV GRC | 07/22/1991 |
| BZFGX  | 12851 TRU-GLAZE-WB SEMI-GLOSS WATER BASED EPO   | DEVORE & RAYNOLDS CO         | 05/17/1993 |
| BZFGY  | 12902 TRU-GLAZE-WB WATER BASED EPOXY COATING    | DEVORE & RAYNOLDS CO         | 05/17/1993 |
| BZFHJ  | 12902 TRU-GLAZE-WB WATER BASED EPOXY COATING    | DEVORE & RAYNOLDS CO         | 05/17/1993 |
| BZFHX  | 12951 TRU-GLAZE-WB GLOSS WATER BASED EPOXY C    | DEVORE & RAYNOLDS CO         | 05/17/1993 |
| BXSLK  | 236 MULTIPURPOSE EPOXY COATING BUFF BASE, 236   | DEVORE COATINGS CO           | 02/25/1991 |
| BNHKK  | 3507 PART A DECO-REZ EPOXY CHEMICAL RESISTANT   | GENERAL POLYMERS CORP        | 06/17/1988 |
| BNLSH  | 400 EPOXY COATING RESIN                         | SELBY BATTERSBY AND CO       | 05/10/1990 |
| BNLSJ  | 401 EPOXY COATING CURING AGENT                  | SELBY BATTERSBY AND CO       | 05/10/1990 |
| BPJQP  | 463070032, EPOXY PA PRIMER COATING VOC COMP     | AKZO COATINGS INC            | 04/24/1990 |
| BQXWQ  | 5000 EPOXY POLYAMIDE COATINGS 2 COMPONENT P     | PRO-LINE PAINT CO            | 03/15/1990 |
| BQXWR  | 5000 EPOXY POLYAMIDE COATINGS 2COMP PAINT (     | PRO-LINE PAINT CO            | 03/15/1990 |
| BPJPD  | 513X419, EPOXY COATING                          | DESOTO INC PACIFIC PLANT     | 08/18/1989 |

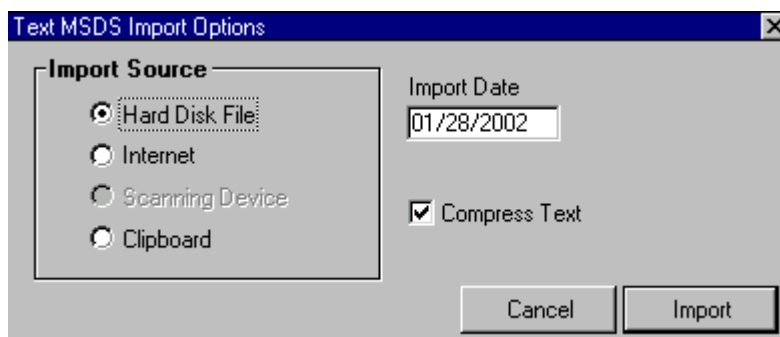
### Product Entry Wizard (cont'd)

The screenshot shows a software window titled "ANSI :". It features a tabbed interface with the following tabs: Product Information, Ingredients, Hazards, First Aid, Fire Fighting, Release Measures, Handling and Storage, Exposure Controls and PPE, and Properties. The "Product Information" tab is currently selected. Below the tabs, the section is titled "Section 01 Chemical Product and Company Identification". The form contains several input fields: Product Name, Synonym, Description, Manufacturer Name, Address, City, State/Prov, Postal Code, Phone Number, and Emergency Phone. Below these fields, a message states "A Rating is NOT Available for this Product." followed by four checkboxes labeled Health, Fire, Reactivity, and Special/Other, each with an adjacent input field. At the bottom right of the window are three buttons: "Save As...", "Cancel", and "Save".

For ANSI text documents, clicking on the **NEXT** button in step one of the Wizard loads the ANSI 16 Section document. ANSI 16 Section documents are used when the MSDS to be added to the database will be typed in manually. The creation of an ANSI 16 Section MSDS is also known as Authoring. ANSI Text documents and Authoring are covered on pp. 4-15 and 4-16.

### Product Entry Wizard (cont'd)

When importing an PDF, HTML, Text or Image MSDS, clicking on the **NEXT** button in step one of the Wizard brings up the Import Options dialog. This allows the user to select the location from which the document is to be imported. Options for importing include computer hard disk, Internet, Windows Clipboard and scanning device. Not all options are available for all document types. For example, importing from a scanning device can only be selected when the document type is an Image. Once the import location has been selected, clicking on the **IMPORT** button starts the importing process. Once the MSDS has been imported, the Wizard advances to step two.



## Product Entry Wizard (cont'd)

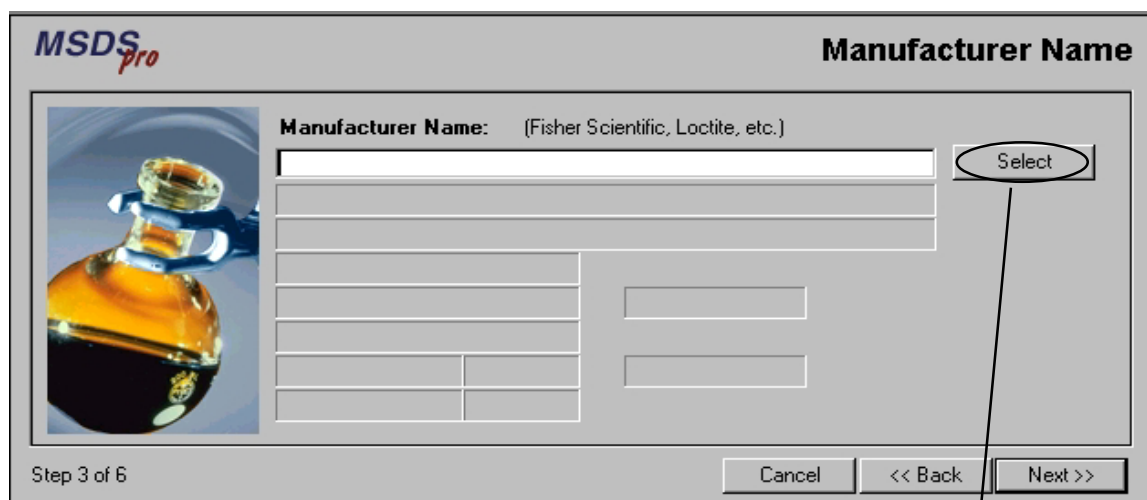
Step two of the Wizard is the *MSDS Product Identification Entry form*. In this step, the product name is entered in the Product Name field. Additional names for the product can be added as synonyms by clicking on the **ADD** button. Synonyms help MSDSpro users find what they are looking for by providing multiple names that will return a product as a search result. The word “paint” might be used as a synonym for an MSDS that was being created for a specific brand of paint. The MSDS ID field is also located in the second step of the wizard. MSDSpro automatically assigns an MSDS ID to a new product record. The MSDS ID field is a unique number assigned to identify the Product record. Product records in the MSDSpro database can be searched for by their MSDS ID number.

The screenshot shows the 'MSDS Product Identification' form, which is Step 2 of 6. On the left, there is a 'Product ID' section with a graphic that says 'Hello. My name is ACETONE'. The main form area has a 'Product Name' field with the placeholder '(Acetone, WD-40, etc.)' and an 'MSDS ID' field with the value 'MSDS00003'. Below these is a section titled 'Add Synonyms for easier searching' with a placeholder '(Grease, Paint, Thread Compound, etc.)'. This section contains a 'Synonym' list box and two buttons: 'Add' and 'Remove'. At the bottom of the form are four buttons: 'Cancel', '<< Back', 'Next >>', and a partially visible 'Next' button. Annotations with arrows point to the 'Add' button and the 'Next >>' button.

Click here to  
add a synonym

Click here to advance  
to the next step

### Product Entry Wizard (cont'd)

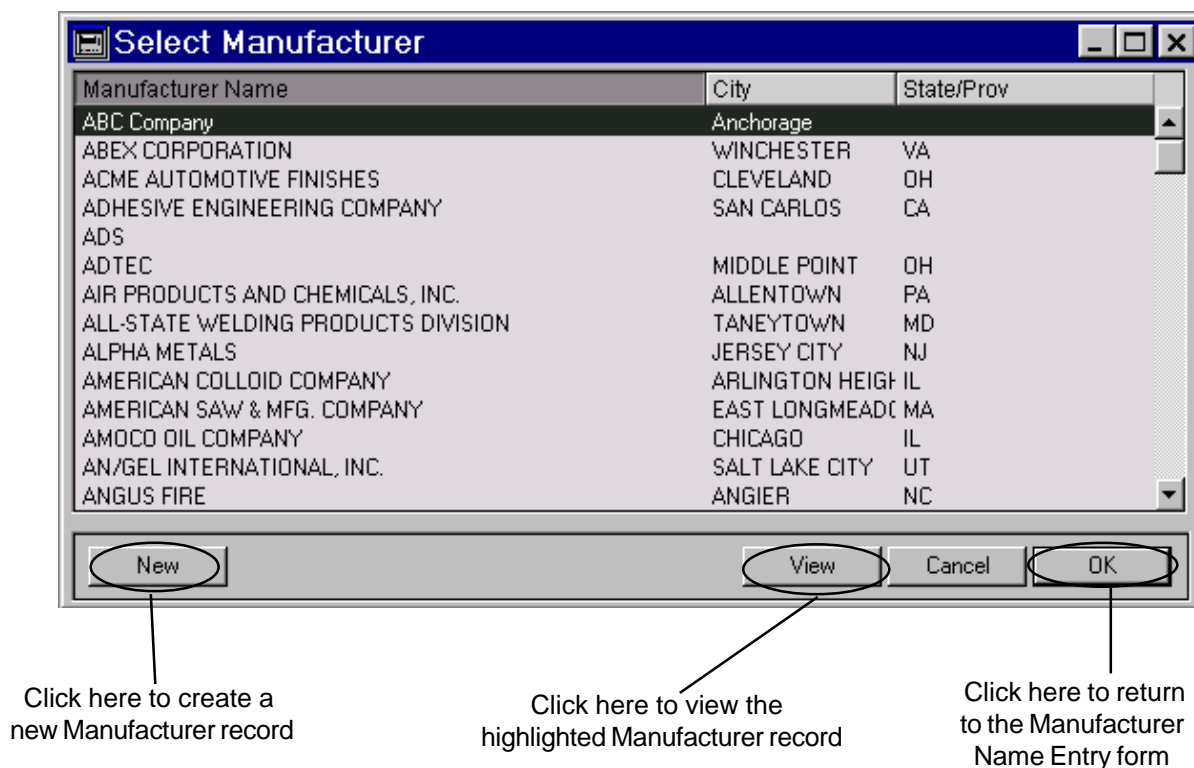


The screenshot shows the 'MSDS pro' logo in the top left corner. The main title 'Manufacturer Name' is in the top right. On the left, there is a small image of a glass bottle with orange liquid. To the right of the image, the text 'Manufacturer Name: (Fisher Scientific, Loctite, etc.)' is displayed above a large text input field. Below this field are several smaller input fields arranged in a grid. To the right of the main input field is a button labeled 'Select'. At the bottom left, it says 'Step 3 of 6'. At the bottom right, there are three buttons: 'Cancel', '<< Back', and 'Next >>'. A line points from the 'Select' button to the text below the form.

Click here to select from  
a list of all manufacturers

Step three of the Wizard is the *Manufacturer Name Entry form*. In this step a manufacturer name is assigned to the Product record. The manufacturer name can be typed in manually or can be selected from a list of existing manufacturers by clicking the **SELECT** button.

## Product Entry Wizard (cont'd)



- Clicking on the **SELECT** button brings up the *Select Manufacturer Output form*.

This form allows the user to select from a list any manufacturer name that has already been entered into the MSDSpro database.

- Import the manufacturer name into the Wizard by single clicking to highlight and choosing the **OK** button.
- From the *Select Manufacturer Output form*, the user can also view an entire Manufacturer record by clicking on the **VIEW** button.
- Create a new manufacturer record by clicking on the **NEW** button.



Product Entry Wizard (cont'd)

**MSDS pro** **MSDS Dates**

Revision Date: (MM/DD/YY)  
00/00/00

Date Entered: (MM/DD/YY)  
01/28/2002

Entered By:  
[Text Field]

View MSDS

Step 4 of 6

Cancel << Back Next >>

Callouts:

- Click here to view the MSDS document (points to View MSDS button)
- Click here to set the HMIS Rating (points to HMIS tab)
- Click here to change the NFPA Rating (points to NFPA tab)

Step four of the Wizard, the *MSDS Dates Entry form*, allows for the entry of important dates related to the MSDS.

- The **Revision Date** field indicates the when the MSDS was last updated with new information.
- The **Date Entered** field indicates the date the product record was created.
- The **Entered By** field lists the name of the user who created the product record.
- The **NFPA tab** allows for the entry of the National Fire Protection Association rating.
- The **HMIS tab** allows for the entry of the Hazardous Materials Identification System rating.

## Product Entry Wizard (cont'd)

**MSDS<sub>pro</sub>** **Wizard Summary**

**Finished?**

- ☒ 1. Enter Info
- ☒ 2. Get MSDS
- ☐ 3. QC Work

Please verify what you entered:

|                    |            |          |           |
|--------------------|------------|----------|-----------|
| Product Name:      | gack       |          |           |
| Manufacturer Name: | ADS        |          |           |
| Revision Date:     | 00/00/00   | MSDS ID: | MSDS00003 |
| Date Entered:      | 07/30/2001 |          |           |
| Entered By:        |            |          |           |

MSDS Document Type: **HTML**

**MSDS has been added** [View MSDS](#)

Step 5 of 6 [Cancel](#) [<< Back](#) [Next >>](#)

Step five of the Wizard, the *Wizard Summary Output form*, allows the user to review for accuracy information entered in the four previous steps. Information available for review in the Wizard Summary includes Product Name, Manufacturer Name, Revision Date, MSDS ID, Date Entered and Entered By fields. The *Wizard Summary Output form* also indicates the MSDS document type and whether or not an MSDS has been attached to the Product record. The **VIEW MSDS** button allows the user to view the MSDS.

## Product Entry Wizard (cont'd)

**MSDSpro** **Assigned Locations**

Use this screen to assign MSDS to locations (Room 242, Building 1, Main Plant, etc.)

☒ **167 INDIAN HEAD EXPLOSIVES**

- ☐ test
- ☒ building 1
- ☐ locations no longer used
- ☒ North American Coal Company
- ☐ SARA Tier II
- ☒ test
- ☐ test 2
- ☒ Use this location

**Add** **Remove**

Cancel << Back Finish

Step 6 of 6

Click here to add the  
new product to a location  
as inventory

Click here to remove the new  
product from inventory

Step six of the Wizard is the *Assigned Locations Entry form*. In this form, the user assigns the newly created product record as inventory to locations created previously in MSDSpro.

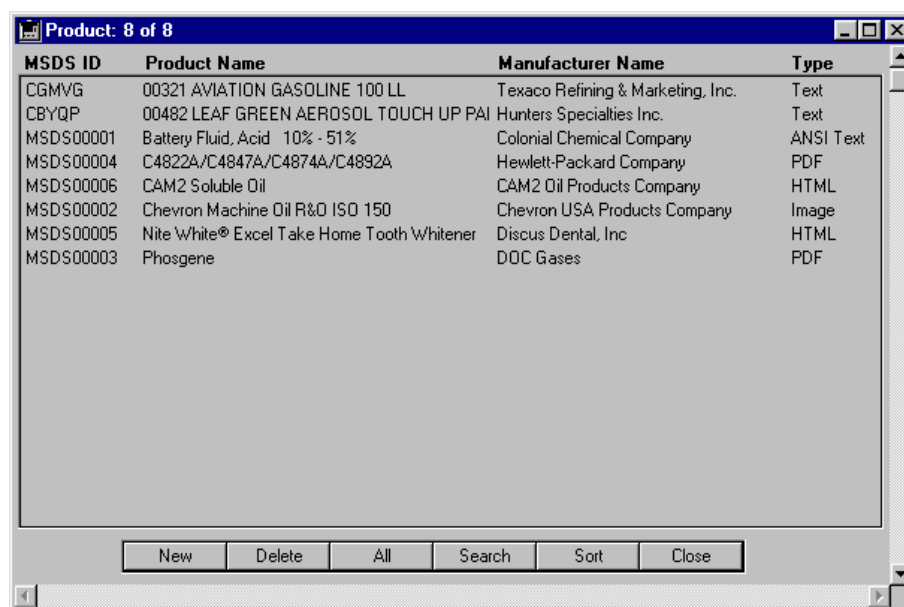
- To add the Product record as inventory to a location, select the location by clicking it with the mouse and then click on the **ADD** button.
- To remove the product from a location, select the location and then click the **REMOVE** button.
- Clicking on the **FINISH** button returns the Wizard to step one, ready to add another product record to the database.

## Products

Product records are the basis for the entire MSDSpro system. The Product record itself consists of the data needed to describe the MSDS product represented. There are many data tables that are related to the Product:

- There can be only one Manufacturer for each Product.
- There can be only one active MSDS Document for each Product.
- There can be many archived MSDS Documents for each active Product.
- There can be many Synonyms for each Product.
- There can be many Inventory records for each Product.
- There can be many Ingredients for each Product.
- There can be many Phrase Library records for each Product.
- There can be many Stock Number records for each Product.
- There can be many Product Users for each Product.

## Product Output Form



| MSDS ID   | Product Name                               | Manufacturer Name                 | Type      |
|-----------|--|-----------------------------------|-----------|
| CGMVG     | 00321 AVIATION GASOLINE 100 LL             | Texaco Refining & Marketing, Inc. | Text      |
| CBYQP     | 00482 LEAF GREEN AEROSOL TOUCH UP PAI      | Hunters Specialties Inc.          | Text      |
| MSDS00001 | Battery Fluid, Acid 10% - 51%              | Colonial Chemical Company         | ANSI Text |
| MSDS00004 | C4822A/C4847A/C4874A/C4892A                | Hewlett-Packard Company           | PDF       |
| MSDS00006 | CAM2 Soluble Oil                           | CAM2 Oil Products Company         | HTML      |
| MSDS00002 | Chevron Machine Oil R&D ISO 150            | Chevron USA Products Company      | Image     |
| MSDS00005 | Nite White® Excel Take Home Tooth Whitener | Discus Dental, Inc                | HTML      |
| MSDS00003 | Phosgene                                   | DOC Gases                         | PDF       |

By choosing *Print* from the *File menu*, the displayed Product records can be printed. In addition to the contents of the current window, the MSDS Documents and Product Summaries can also be printed.

From the Product *Data Entry form*, the MSDS Document and Product Summary for the current Product record can be printed.

## Product Data Entry Form - Product Tab

The Product record consists of the MSDS Product information that is only stored once. For example, Product Name, Manufacturer, Revision Date, Intended Use, Shelf Life, Description, etc.

The Manufacturer Name field allows selection from the available Manufacturer records entered in the system. Typing the first few characters of the Manufacturer name and pressing the Tab key will search for a matching Manufacturer name, or present a list to select from. Alternately, clicking the **SELECT** button will also present a list of all Manufacturer records to select from. When entering a new record, the **SELECT** button is available to choose from available Manufacturer records. After the Manufacturer has been selected, the button changes to **VIEW**. Clicking **VIEW** will display the Manufacturer information.

By clicking **NO AUTO UPDATE**, the document will not be overwritten by subsequent automatic updates. This will preserve any modifications or additions that are made to the document itself.

There are 12 tabs in the Product *Data Entry form*. Clicking the tabs will display the corresponding screen.

By clicking **CD-ROM** during entry of a new record, a search area will open that allows searching of the MSDSpro CD and selecting a particular Product and Document to add to the system (see *Adding MSDS Document from MSDSpro CD* later in this section.)

The **CANCEL** and **SAVE** buttons will function on any form page and affect the data on all other form pages.

The screenshot shows the 'Product: 1 of 9' window with the 'Product' tab selected. The form contains the following fields and buttons:

- Manufacturer Name:** A text input field with a 'Select' button next to it. An annotation 'Select Manufacturer (New Record)' points to this button.
- Product Name:** A text input field containing '00321 AVIATION GASOLINE 100 LL'.
- MSDS ID:** A text input field containing 'CGMVG'.
- Manufacturer Name:** A text input field containing 'TEXACO REFINING & MARKETING INC'.
- CD-ROM:** A button labeled 'CD-ROM' with an annotation 'Add Product from MSDSpro CD' pointing to it.
- View:** A button labeled 'View' with an annotation 'View Manufacturer (Existing Record)' pointing to it.
- Document Type:** A section with buttons for 'ANSI Text', 'Text', 'Image', 'PDF', and 'HTML'. An annotation 'Document Type' points to this section.
- Product Dates:** A section with fields for 'Revision Date' (12/10/1996), 'Date Entered' (07/20/1998), 'Entered By' (KJP), 'Review Date' (05/01/1998), 'Start Date' (07/20/1998), 'End Date' (00/00/00), 'Review Number' (ECN00343), 'Expected End' (01/01/2003), and 'Shelf Life' (10 YRS).
- Library Document:** A checkbox.
- No Auto Update:** A checkbox.
- Buttons:** 'Edit Log', 'Duplicate', 'Delete', 'Cancel', and 'Save' at the bottom.

An annotation 'Current Form Tab' points to the 'Product' tab in the window's tab bar.

## Product Data Entry Form - ANSI MSDS Document Tab

The **Document tab** allows for browsing and modification of the actual MSDS document. Any changes made here are immediately available after saving the record. The Document Type is selected in the Product Data Entry form **Product tab**.

The ANSI format MSDS document is divided into 16 sections. Each tab contains one complete section. Click on an individual tab to make changes to the desired section.

The screenshot shows a software window titled "ANSI : Battery Fluid, Acid 10% - 51%". At the top, there is a "Tab scrolling selector" with tabs for "Product Information", "Ingredients", "Hazards", "First Aid", "Fire Fighting", "Release Measures", and "Handling and Storage". The "Product Information" tab is selected, labeled as the "Current ANSI Form Tab".

**Section 01 Chemical Product and Company Identification**

Product Name: Battery Fluid, Acid 10% - 51%

Synonym: Battery Acid, Sulfuric Acid

Description:

Manufacturer Name: Colonial Chemical Company

Address: P.O. Box 1254

City: Jonesville

State/Prov: MI

Postal Code: 56254

Phone Number: (906) 254-5641

Emergency Phone: (800) 256-5874

**NFPA 704® Rating**

Health: 3 Fire: 0 Reactivity: 2 Special/Other: ACID

Buttons at the bottom: Save As..., Cancel, Save

## Authoring ANSI 16 Section Documents

The ANSI 16 Section format is designed to be an easy way to create MSDSs within MSDSpro. Using MSDSpro to create an MSDS is known as authoring.

To author an ANSI 16 Section MSDS within MSDSpro:

1. Click on the **ADMIN** button on the floating toolbar.
2. Choose **Products** within the Admin Control Panel and click the **SELECT** button.
3. Choose **Add New Records** and then click the **SELECT** button.
4. Select **ANSI Text** as the Document type.

### Authoring ANSI 16 Section Documents (cont'd)

5. Enter under the *Product* and *Ingredient* tabs information relevant to the first two sections of the ANSI document.
6. Click on the *Document* tab.

Product Information  
and Ingredient Tabs

ANSI : APPROXIMATE JIM PRIMER FOR PVC & CPVC PIPE

Product Information | Ingredients | Hazards | First Aid | Fire Fighting | Release Measures | Handling and Storage

Section 04 First Aid Information

| Phrase Heading | Phrase Text |
|----------------|-------------|
|                |             |

First Aid: "NONE EXPECTED IF REASONABLE CARE AND CAUTION EXERCISED."  
Acute Chronic: "ADD ABSORBENT TO SPILL AREA. AVOID BREATHING VAPORS. VENTILATE AREA."  
Eyes: "NO DATA SUPPLIED"

Phrase Library SpellCheck Cancel Save

Click here to launch  
the Phrase Library

7. Enter MSDS information under the relevant sections.
- Product and Ingredient information cannot be added in the ANSI 16 Section Document Data Entry form. Enter this information under the product and ingredient tabs within the product record.
  - Use the Phrase Library to enter as much information as possible. To learn how to add phrases to an ANSI 16 Section Document see pages 4-56 through 4-58. Enter the remaining information by manually typing into the lower text field of each section.
8. Once all the information has been entered, click the SAVE button in the lower right hand corner.

## Exporting ANSI MSDS Documents

**SAVE AS...** allows the exporting of the MSDS document. The file is created after using the *Save File* window to select the name for the new disk file and the location to save. Use this button to save a file for e-mailing distribution of an MSDS.

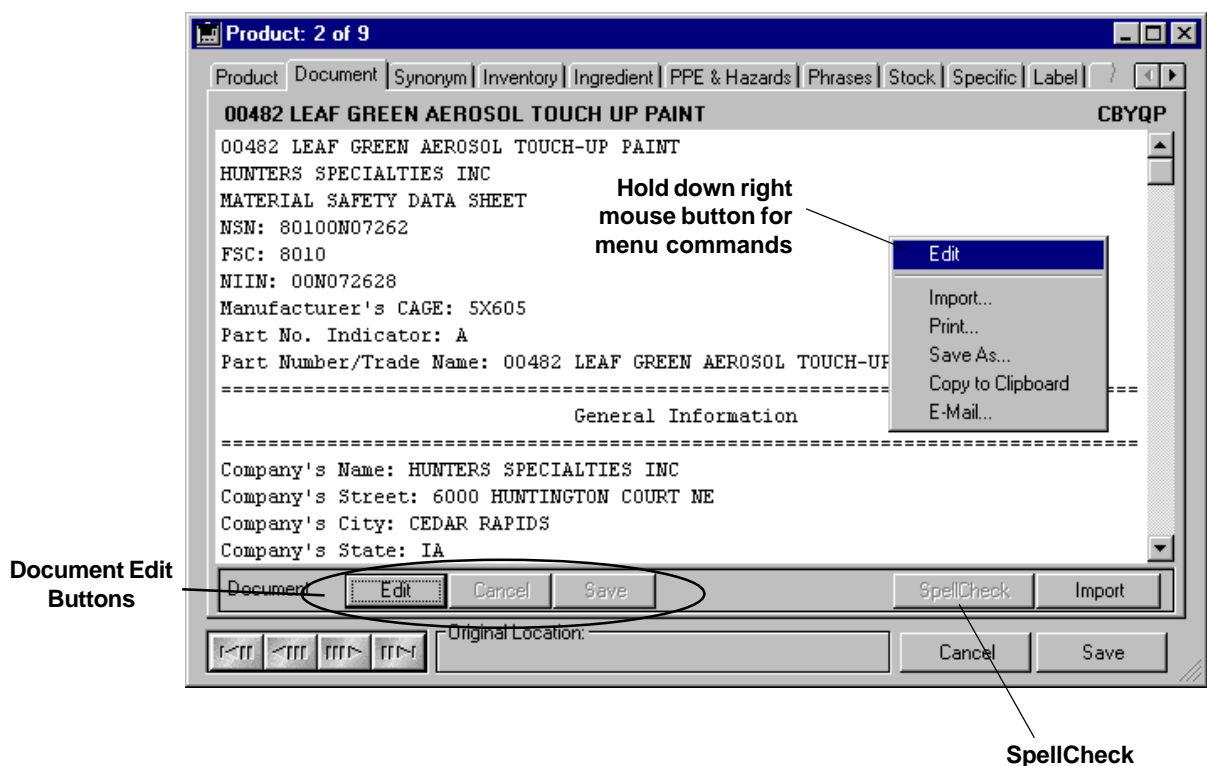
The different export options are:

- **ASCII (Plain) text**
- **RTF (Rich Text Format)**
- **HTML (Hyper Text Markup Language)**
- **PDF (Adobe® Acrobat Portable Document Format)**

## Product Data Entry Form - Text MSDS Document Tab

The **Document tab** allows for browsing and modification of the actual MSDS document. Any changes made here are immediately available after saving the record. The Document Type is selected in the *Product Entry form Product tab*.

To edit the document, click the Document **EDIT** button. When modifications are complete, click **SAVE** or **CANCEL** to cancel changes to the Document.



To check the spelling of an MSDS document, click **SPELLCHECK** while in Document Edit mode.



## Importing Text MSDS Documents

1. Click **IMPORT** to import a Text MSDS document
2. Select **ARCHIVE EXISTING DOCUMENTS** to archive the existing document before replacing with the new imported document
3. Select **COMPRESS TEXT** to compress the text data internally to reduce storage requirements

There are 3 Import Source options for Text MSDS documents:

### ■ Import Text from Hard Disk File

Imports a text file from the hard disk.

### ■ Import Text from Internet

Downloads a text (or HTML) file automatically from the Internet.



### **WARNING:**

*If the text/HTML file contains tables (special HTML formatting), the Text MSDS will not be usable. In this case, change the Document Type to HTML on the Product tab and download again.*

To download a Text MSDS:

### 1. Copy the URL from your Web Browser

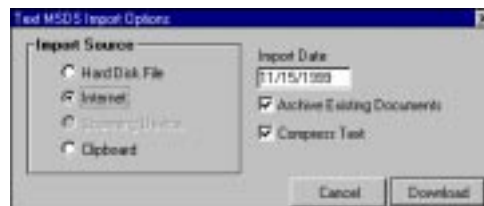
This is accomplished either of two ways:

- View the text/html through your Web Browser. Select the Location (URL) and copy to the clipboard (Ctrl-C).
- Instead of viewing the text/html, right-mouse click on the Link, and select Copy Link Location (URL), which will copy the URL to the clipboard.

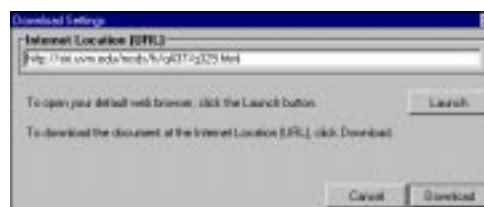


## Importing Text MSDS Documents (Cont'd)

2. Select **INTERNET** as Import Source
3. Click **DOWNLOAD**



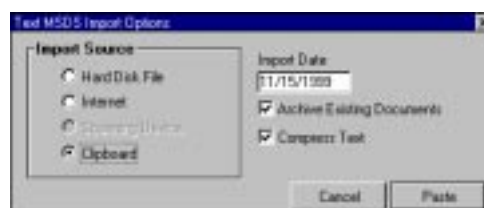
- 4. Paste the Internet Location (URL) using Ctrl-V**
- 5. Click DOWNLOAD**



If there is an error contacting the web server, it may be because the Proxy settings are not correct. See *Preferences* in *Special Functions*.

- **Import Text from Clipboard**

Imports text data from the clipboard.



## Exporting Text MSDS Documents

**SAVE AS...** allows the exporting of the MSDS document using either ASCII text, Rich Text Format (RTF - preserves the document formatting for most popular word processors), or HTML. The file is created after using the *Save File* window to select the name for the new disk file and the location to save. Use this button to save a file for e-mail distribution of an MSDS.

## Product Data Entry Form - Image MSDS Document Tab

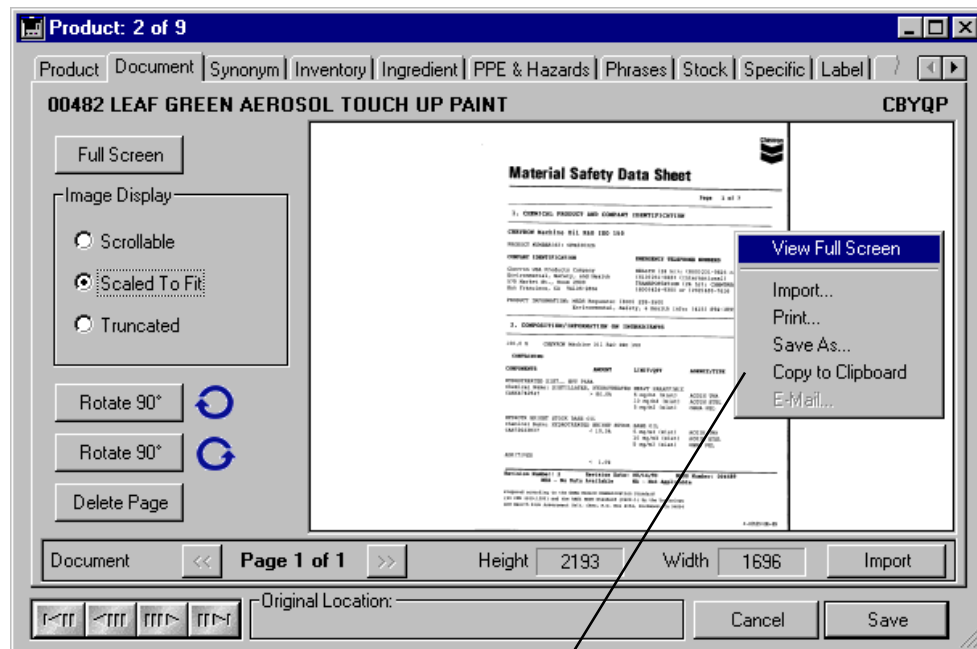
*Note: If QuickTime 3.0 is not installed on the workstation, images may not be loaded or viewed using the **Document tab**.*

The **Document tab** allows for browsing and modification of the actual MSDS document. Any changes made here are immediately available after saving the record. The Document Type is selected in the **Product Data Entry form Product tab**.

MSDSpro uses QuickTime 3.0 to translate different image types into a common internal image format, and to display them in the Document tab. After installing QuickTime 3.0 on the workstation that will load the image files (QuickTime is available on the MSDSpro Installation CD, and directly from Apple Computer, Inc.), all QuickTime-supported images are available to load into MSDSpro. After loading, any workstation can view the images. Current QuickTime 3.0 supported image types are:

- PICT
- Photoshop
- GIF
- JPEG
- TIFF
- PNG
- BMP
- Targa
- SGI
- MacPaint
- QTIF
- QDGX

The Image MSDS document screen allows multiple image pages to be loaded into MSDSpro. You can view the entire document by clicking **FULL SCREEN**, modify the Image Display characteristics, **ROTATE** the current image in either direction, or delete the current page by clicking **DELETE PAGE**.



Click the right mouse button  
for menu commands

## Importing Image MSDS Documents

Click **IMPORT** to import an Image MSDS document. Select **ARCHIVE EXISTING DOCUMENTS** to archive the existing document before replacing with the new imported document. Select **COMPRESS IMAGES** to compress the text data internally to reduce storage requirements. Select **CREATE WEB GIF IMAGE** to automatically create a web-friendly version of the image for web browser access using MSDSpro PlusWeb and Enterprise.

Using the **BEFORE** and **AFTER** locations, and **FIRST** or **LAST** page, either a single image or a group of images are loaded into the exact page sequence.

There are 3 Import Source options for Image MSDS documents:

### ■ Import Images from Hard Disk File

Imports an image file from the hard disk.

Select **IMPORT GROUP** if more than one image will be loaded. All image files must be in a single folder on the hard drive and they must be named in sequential order.



### ■ Import Images from Scanning Device

Imports an image file from an attached scanning device.

*Note:*

*The scanning device must have TWAIN acquire fully installed and working correctly. If scanning acquisition fails to import a document correctly or crashes the TWAIN scanning module, verify that the latest TWAIN driver and device driver are installed.*



### To Acquire an Image MSDS:

1. Verify that the scanning device is switched on
2. Select **SCANNING DEVICE** as Import Source
3. Click **ACQUIRE**

## Importing Image MSDS Documents (Cont'd)

### 4. Locate the *PhotoshopPlugins* folder

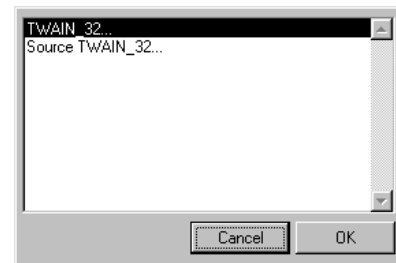
*Note: Adobe® Photoshop does not need to be installed. The default installation location for this folder is C:\Program Files\MSDSpro\Program\PhotoshopPlugins\.*

### 5. Open the Twain\_32.8BA file

### 6. Select Twain\_32

### 7. Click OK

### 8. The scanning device's TWAIN acquisition module will be presented:



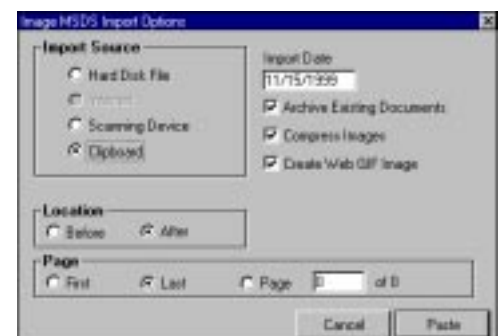
Recommended scanner settings:

- **Resolution:** 200 DPI
- **Scan Mode:** Black and White

*Note: If errors are encountered, verify that the above settings are being used. Excessive file size (DPI and grayscale/color scanning mode can cause out-of-memory errors to occur.*

### ■ Import Images from Clipboard

Imports image data from the clipboard. Each image must be copied from the clipboard individually.



## Product Data Entry Form - PDF MSDS Document Tab

The **Document tab** allows for browsing and modification of the actual MSDS document. Any changes made here are immediately available after saving the record. The Document Type is selected in the Product Data Entry form **Product tab**.

The PDF MSDS document screen allows Adobe® Portable Document Format (PDF) files to be loaded into MSDSpro and viewed as a standard MSDS document. After Importing the PDF file, click **LAUNCH PDF** to launch the PDF file. Click **EXPORT PDF** to save the PDF file to disk from the *Save File* window.

Product: 5 of 9

Product Document Synonym Inventory Ingredient PPE & Hazards Phrases Stock Specific Label

C4822A/C4847A/C4874A/C4892A MSDS00004

PDF document can be viewed by clicking Launch PDF.

Import PDF

Launch PDF

Export PDF

Import Date: 10/11/1999 KBytes: 19.4

Original Location: <http://www.hp.com/abouthp/environment/pdf-files/inkj>

Cancel Save

## Importing PDF MSDS Documents

1. Click **IMPORT PDF** to import a PDF MSDS document
2. Select **ARCHIVE EXISTING DOCUMENTS** to archive the existing document before replacing with the new imported document

The PDF document is automatically compressed internally to reduce hard drive storage requirements.

There are 2 Import Source options for PDF MSDS documents:

## Importing PDF MSDS Documents (Cont'd)

### ■ Importing PDF from Hard Disk File

Imports a PDF file from the hard disk.



### ■ Importing PDF from Internet

Downloads a PDF file automatically from the Internet.

To download a PDF MSDS:

#### 1. Copy the URL from your Web Browser. This is accomplished either of two ways:

- View the PDF through your Web Browser. Highlight the Location (URL) shown and copy to the clipboard (Ctrl-C).
- Instead of viewing the PDF, right-mouse click on the Link, and select Copy Link Location or Copy Shortcut (URL), which will copy the URL to the clipboard.



#### 2. Select INTERNET as Import Source

#### 3. Click DOWNLOAD



#### 4. Paste the Internet Location (URL) using Ctrl-V

#### 5. Click DOWNLOAD

If errors are encountered, the Proxy settings may need to be configured in the Preferences area. See *Preferences* within the *Special Functions* section.

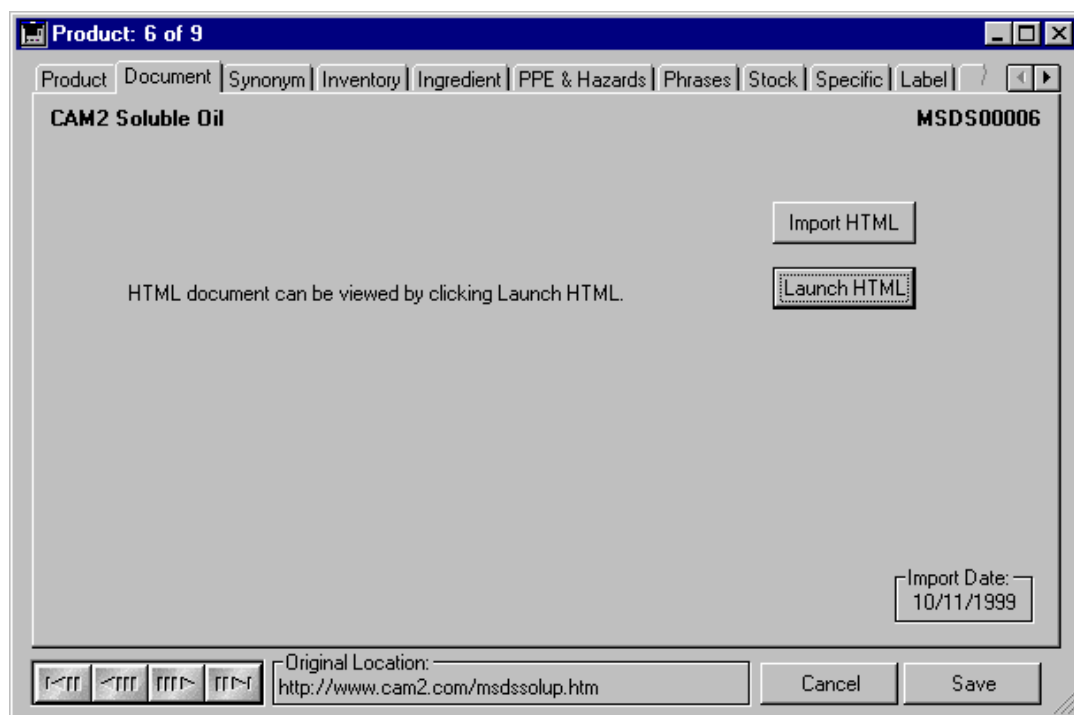


## Product Data Entry Form - HTML MSDS Document Tab

The **Document tab** allows for browsing and modification of the actual MSDS document. Any changes made here are immediately available after saving the record. The Document Type is selected in the Product Data Entry form **Product tab**.

The HTML MSDS document screen allows Hyper Text Markup Language (HTML) documents to be loaded into MSDSpro and viewed as a standard MSDS document. HTML documents can be used on virtually any computer without modification, making an HTML MSDS document a very convenient and portable way to distribute MSDS information.

The document must first be created through a program that can author HTML documents. The files can be located directly on the Internet, or downloaded and saved to the local hard disk.



## Importing HTML MSDS Documents

1. Click **IMPORT HTML** to import an HTML MSDS document and associated graphic images
2. Select **ARCHIVE EXISTING DOCUMENTS** to archive the existing document before replacing with the new imported document

The HTML and associated graphic images are automatically compressed internally to reduce hard drive storage requirements.



## Importing HTML MSDS Documents (Cont'd)

There are 2 Import Source options for HTML MSDS documents:

### ■ Hard Disk File

Imports a text file from the hard disk.

Any associated graphic images required by the HTML file should also be located in the same folder as the base .htm file.

### ■ Internet

Downloads an HTML document (including any associated graphic images) automatically from the Internet and stores it locally within MSDSpro for future use.

To download an HTML MSDS:

1. **Copy the URL from your Web Browser.**  
This is accomplished either of two ways:

- View the HTML document through your Web Browser. Highlight the Location (URL) shown and copy to the clipboard (Ctrl-C).
- Instead of viewing the HTML document, right-mouse click on the Link, and select Copy Link Location (URL), which will copy the URL to the clipboard.

2. **Select INTERNET as Import Source**

3. **Click DOWNLOAD**

4. **Paste the Internet Location (URL) using Ctrl-V.**

5. **Click DOWNLOAD**

If errors are encountered, the Proxy settings may need to be configured in the Preferences area. See *Preferences* within the *Special Functions* section.

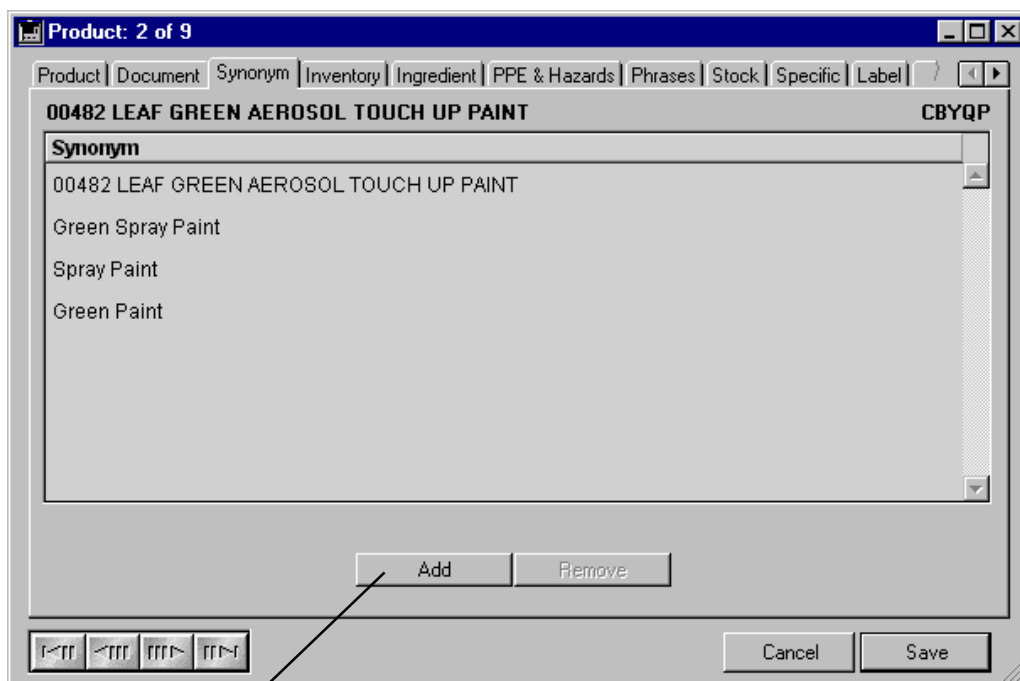


## Product Data Entry Form - Synonym Tab

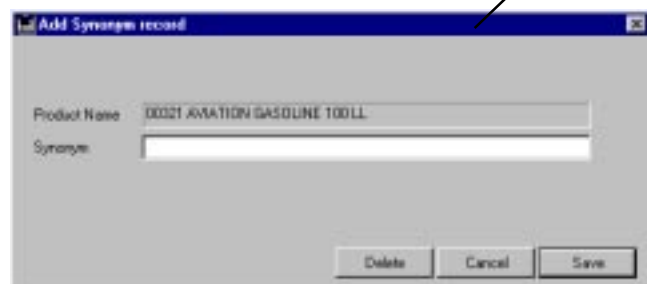
The **Synonym tab** displays the current Synonyms for this Product. An unlimited number of Synonyms may exist for each Product. By default, there is always one Synonym that matches the Product Name, which cannot be modified or deleted.

When searching MSDSpro by Product Name, the Synonyms are searched for matching keywords. Sounds-Like Phonetic searching is also used in conjunction with Synonym keywords.

- Click the **ADD** button to create a new Synonym record
- Click the **DELETE** button to remove a highlighted Synonym record
- Double-click a Synonym to modify the record



The screenshot shows a window titled "Product: 2 of 9" with a tabbed interface. The "Synonym" tab is selected. The main area displays a list of synonyms for the product "00482 LEAF GREEN AEROSOL TOUCH UP PAINT". The list includes the product name itself, "Green Spray Paint", "Spray Paint", and "Green Paint". Below the list are "Add" and "Remove" buttons. At the bottom of the window are navigation buttons (back, forward, etc.) and "Cancel" and "Save" buttons. A line points from the "Add" button to the "Add Synonym record" dialog box below.



The "Add Synonym record" dialog box is shown. It has a "Product Name" field containing "00021 AVIATION GASOLINE 100LL" and a "Synonym" field which is empty. At the bottom are "Delete", "Cancel", and "Save" buttons.

## Product Data Entry Form - Inventory Tab

The **Inventory tab** is used to add, modify, or delete Inventory and Container records for each Product. An unlimited number of Inventory and Container records may exist for a Product. The Product is stored as Inventory at the Locations shown in **bold** under the **Inventory tab**.

- Click the **ADD** button to add an Inventory record
- Click the **DELETE** button to remove a highlighted Inventory record
- Click the **EDIT** button or double-click to modify an Inventory record

Clicking on the **ADD** or **EDIT** button loads the *Inventory Data Entry form*. The *Inventory Data Entry form* is covered on pp. 4-51 through 4-56.

## Adding a Inventory Location

Clicking on the **ADD** or **EDIT** button on the **Inventory tab** loads the *Inventory Data Entry form*. The *Inventory Data Entry form* is covered on pp. 4-51 through 4-56.

The screenshot shows a software window titled "Edit Inventory record". It contains several input fields and buttons. At the top, there are fields for "Product Name" (containing "Aniline blue") and "Storage Name" (containing "Main Plant Corporate"), each with a "Select" button to its right. Below these is a "Description" field and a "Storage Location" field (containing "Main Plant Corporate"). A tabbed interface below has three tabs: "Physical Inventory", "SARA Inventory", and "SARA Containers". The "Physical Inventory" tab is active, showing fields for "Start Date" (00/00/00), "End Date" (00/00/00), and a "Non Periodic" checkbox. To the right of these are "Temperature" (0), "Inventory Person" (empty), and checkboxes for "Solid", "Liquid", and "Gas". Below these are "Disposal Method" (empty), "Density lbs/" (4.692), and "Specific Gravity" (0). A large "Notes" text area is on the left. At the bottom right are "Delete", "Cancel", and "Save" buttons.

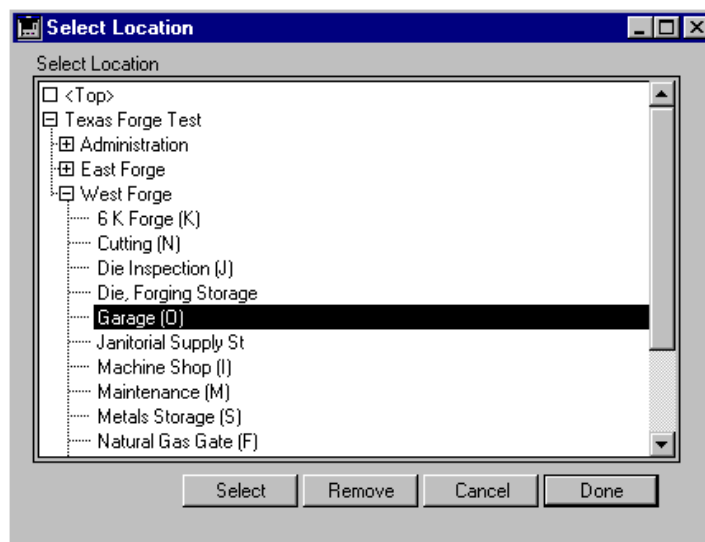
1. To add the Product as Inventory to a Location, click on the **SELECT** button to the right of the **Storage Name** field

This loads a list of all Locations known as the *Select Location Output form*.

## Adding a Inventory Location (Cont'd)

### The Select Location Output form:

Click **SELECT** on the *Inventory Data Entry form* to display a list of all Storage Locations, arranged within Locations and Sublocations. MSDSpro can accommodate several thousand levels of Inventory Locations. An Inventory item can be assigned to any Location at any level.



- Click the plus sign (+) to the left of a Location name to display its Sublocations
  - Click the minus sign (-) to the left of a Location name to hide its Sublocations
2. Highlight a Storage Location and click the **SELECT** button to add a Product as Inventory
- Repeat this process for each Location that the Product is to be added to. Once selected, a Location will appear as **bold** in the Location list.
3. Click **DONE** to finish adding the Products as Inventory

## Product Data Entry Form - Ingredient Tab

The **Ingredient tab** displays the current Ingredients for this Product. An unlimited number of Ingredients may exist for each Product.

- Click the **ADD** button to create a new Ingredient record
- Click the **DELETE** button to remove a highlighted Ingredient record
- Double-click an Ingredient to modify the record

To view the list of CAS Numbers and associated Chemical records, click the Select button.

A list will appear listing all CAS Numbers in the Chemical Table. If the CAS Number is not found, the Administrator must enter the new listing in the Chemical Table (see *Chemicals* in *Data Access*).

Indicate if Chemical is Trade Secret  
(Printing is restricted on MSDS)

## Product Data Entry Form - PPE & Hazards Tab

The **PPE & Hazards tab** displays the current PPE and Hazards for this Product. Click all Hazard or PPE flags that apply to this Product.

Selections made here will be visible from the *Product Hazard Summary* report

**Product: 4 of 9**

Product | Document | Synonym | Inventory | Ingredient | **PPE & Hazards** | Phrases | Stock | Specific | Label

**Battery Fluid, Acid 10% - 51%** **MSDS00001**

**PPE**

☒ Gloves ☒ Goggles ☒ Face Shield ☒ Apron ☒ Respirator

**Health Hazards**

☐ No Hazard ☐ Corrosive  
☒ Toxic ☐ Sensitizer  
☐ Highly Toxic ☐ Carcinogen  
☐ Reproductive Toxin ☐ Acute  
☒ Irritant ☐ Chronic

**Physical Hazards**

☐ No Physical Hazard ☒ Explosive  
☐ Combustible Liquid ☐ Pyrophoric  
☐ Compressed Gas ☐ Organic Peroxide  
☐ Oxidizer ☐ Water Reactive  
☒ Flammable ☐ Unstable/Reactive

**Route of Entry**

☒ Inhalation ☒ Skin or Eye Contact  
☒ Ingestion ☒ Skin Absorption

**Target Organs & Effects**

☐ Lungs ☐ Central Nervous System  
☐ Heart ☐ Cardiovascular system  
☐ Kidney ☐ Mucous Membranes  
☒ Eyes ☐ Autonomic Nervous System  
☒ Skin ☐ Respiratory System  
☐ Prostate ☐ Blood  
☐ Blood ☐ Mutagen  
☐ Liver ☐ Teratogen

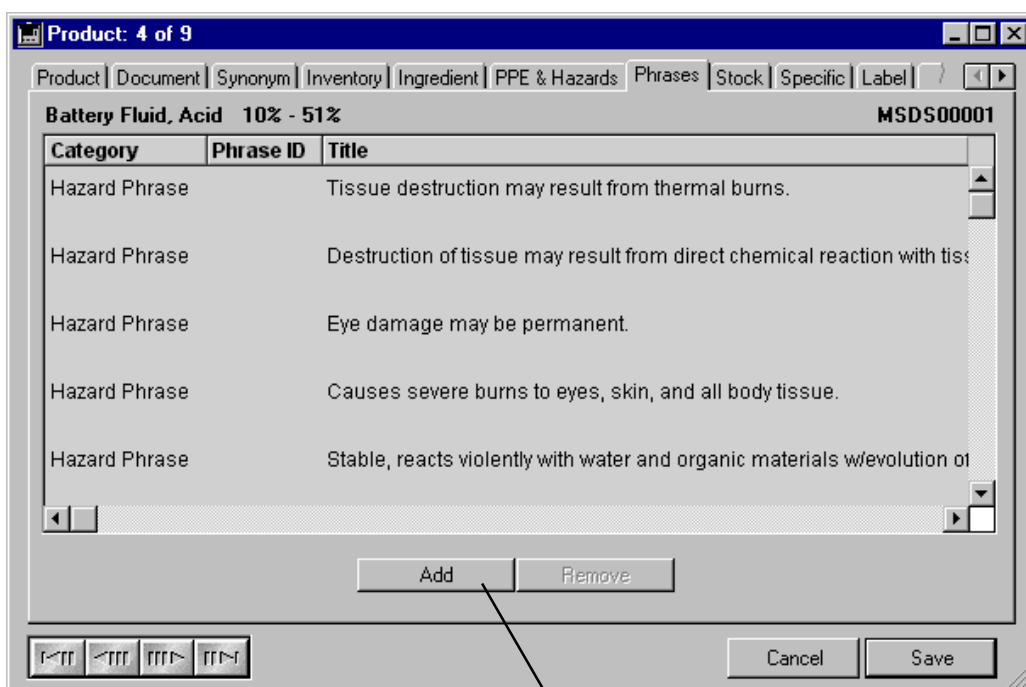
Navigation buttons: [Previous] [Next] [First] [Last]

Cancel Save

## Product Data Entry Form - Phrases Tab

The **Phrases tab** displays the current Phrase Library records that are associated with this Product. An unlimited number of Phrase records may exist for each Product.

- Click the **ADD** button to create a new Phrase record
- Click the **DELETE** button to remove a highlighted Phrase record
- Double-click a Phrase record to modify the record



The screenshot shows a software window titled "Product: 4 of 9". It has a tabbed interface with tabs for Product, Document, Synonym, Inventory, Ingredient, PPE & Hazards, Phrases, Stock, Specific, and Label. The "Phrases" tab is active. The main area displays a table with columns "Category", "Phrase ID", and "Title". The table lists five "Hazard Phrase" records. Below the table are "Add" and "Remove" buttons. At the bottom of the window are navigation buttons (back, forward, etc.) and "Cancel" and "Save" buttons. An arrow points from the "Add" button to the "Add Product Phrase record" dialog box below.

| Category      | Phrase ID | Title  |
|---------------|-----------|--|
| Hazard Phrase |           | Tissue destruction may result from thermal burns.                        |
| Hazard Phrase |           | Destruction of tissue may result from direct chemical reaction with tiss |
| Hazard Phrase |           | Eye damage may be permanent.   |
| Hazard Phrase |           | Causes severe burns to eyes, skin, and all body tissue.                  |
| Hazard Phrase |           | Stable, reacts violently with water and organic materials w/evolution of |



The screenshot shows a dialog box titled "Add Product Phrase record". It contains the following fields and controls:

- Product Name: Battery Fluid, Acid 10% - 51%
- Phrase ID: [Text Field]
- Title: [Text Field]
- Category: [Dropdown Menu]
- Phrase Text: [Large Text Area]
- Buttons: Edit Log, New, Delete, Cancel, Save



## Product Data Entry Form - Stock Number Tab

The **Stock Number tab** displays the current Stock Numbers for this Product. An unlimited number of Stock Numbers may exist for each Product. There can be an internal Stock number entered, as well as a manufacturer Stock Number (which can use the same Stock Number record) and a Bar Code ID.

- Click the **ADD** button to create a new Stock Number record
- Click the **DELETE** button to remove a highlighted Stock Number record
- Double-click a Stock Number to modify the record

| Internal Number | Manufacturer Number | Bar Code ID   |
|-----------------|---------------------|---------------|
| CPD-0123        | XMX01101            | 1019171627181 |

Product Name: 00321 AVIATION GASOLINE 100 LL

Internal Number:

Manufacturer Number: 00321

Bar Code ID:

Buttons: Delete, Cancel, Save

## Product Data Entry Form - Specific Tab

The **Specific tab** displays the specific information relating to this Product record.

The Definable Fields are defined by the DBA in the *Preferences* area, and are completely customizable for your installed version of MSDSpro. Changes made are retained in your local datafile for future use.

Product: 1 of 9

Product | Document | Synonym | Inventory | Ingredient | PPE & Hazards | Phrases | Stock | Specific | Label

00321 AVIATION GASOLINE 100 LL CGMVG

Description: AvGas for use in Turbo shop Product Owner: OPMS

Notes:

Definable Fields:

Bob's no updater ☐ Alert ☒

EHS Approved: KJP 01/07/2001 Amount 1/1/99: 0.00

Ops Approved:

Mgmt Approved:

Cancel Save

## Product Data Entry Form - Label Tab

The **Label tab** displays the current NFPA or HMIS hazard rating for this Product. Either the NFPA or the HMIS hazard rating can be used at any time, but when presenting the hazard rating to the end user, the use of the NFPA rating will default if both are specified.

1. Click **NFPA** or **HMIS** to allow entry into the hazard rating fields for the appropriate type of hazard
2. Select the NFPA or HMIS hazard ratings from the pull-down lists
3. Click **PRINT LABEL** to create a container label using blank or preprinted forms

## Printing Labels for a Specific Product

1. Click **PRINT LABEL** to select a label style and click **PRINT** when ready

The *Label editor* will be presented when selecting a preprinted label to print.



## Product Data Entry Form - Users Tab

The **Users tab** displays the currently assigned *Product Users*.

Product Users can have associated distribution information, which streamlines the update process for those users of specific products. For example, fax number, mailing address or e-mail address can be utilized to automatically update Product Users when new updates occur to the MSDS document.

- Click the **ADD** button to create a new Product User record
- Click the **DELETE** button to remove a highlighted Product User record
- Double-click a Product User to modify the record

| Current Version | Current Revision Date | User Name          | City      |
|-----------------|-----------------------|--------------------|-----------|
| 0               | 12/10/1996            | ACME Trucking Corp | Milwaukee |

Product Name: 00321 AVIATION GASOLINE 100 LL

User Name: ACME Trucking Corp

Address: 1432 48th Street

City: Milwaukee

State/Prov: WI

Fax Number: (743) 128-4395

EMail Address: jpeterson@acmetruck.com

Current Revision Date: 12/10/1996

Current Version: 1

Start Date: 12/10/00

End Date: 01/01/00

Distributed By: JJP

Notes:

## Product Data Entry Form - Regulatory Tab

The **Regulatory tab** displays the associated SARA Report codes. These codes are required if SARA reporting is utilized within MSDSpro.

SARA Reporting is an optional and powerful function available within MSDSpro, and may not be required for the purposes of your organization.

Product: 1 of 9

Synonym | Inventory | Ingredient | PPE & Hazards | Phrases | Stock | Specific | Label | Users | Regulatory

00321 AVIATION GASOLINE 100 LL CGMVG

**SARA Report Codes**

|              |                                     |                 |                          |              |                                     |
|--------------|-------------------------------------|-----------------|--------------------------|--------------|-------------------------------------|
| SARA Fire    | <input checked="" type="checkbox"/> | SARA Reactivity | <input type="checkbox"/> | SARA Chronic | <input checked="" type="checkbox"/> |
| SARA Release | <input checked="" type="checkbox"/> | SARA Acute      | <input type="checkbox"/> |              |                                     |

Cancel Save

## Adding ANSI MSDS Documents from the MSDSpro CD

To add new Product and ANSI (16 Section) MSDS from the MSDSpro CD, make sure the MSDSpro CD is available (the CD must be inserted in the CD-ROM drive when MSDSpro is started), or the *MSDSproData* folder has been copied to the root level of a local hard drive, and click the **CD-ROM** button in the *Product Data Entry form Product tab*. The *Select a CD Product to Add* window appears.

The **Search For** entry area is used to specify keywords used in the CD Product Name and Manufacturer search. Typing more than one word will search for CD Products that either contain *all* words entered, or *either* of the words entered, depending on the method chosen.

The **Method** choice allows a search that will find word(s) in the Product Name that begin with the specified word(s), or word(s) that are contained within a larger word string. Note: choosing the *Word begins with* is a much faster search than *Word contains*.

The **Field** choice allows a search for a *Product Name* that matches the specified word(s) typed (optionally using the *Sounds Like* phonetic search), or a search for *Manufacturer Name* that matches the specified word(s).

After clicking the **SEARCH** button, a resulting list of matches will appear (limited to the selected Limit pull-down choice). Using **SEARCH SELECTION** will narrow the search within the currently found records only. For example, searching for "red paint" first, then specifying a Manufacturer Name of "krylon" and clicking **SEARCH SELECTION** will search the currently found "red paint" records for only the records belonging to the new manufacturer specified. Click **PREVIOUS** to restore the previous records.

Simply select the Product and click the **ADD** button to add it as a new Product and ANSI MSDS, or double-click the Product to preview the document (previewing the document does not save it within MSDSpro).

**Click Column Heading to Sort**

**Search Found Records**

**Search Results Limit**

**New Search**

**Ascending or Descending Sort Order**

| MSDS # | CD Product Name                                 | Manufacturer                 | Rev Date   |
|--------|---|------------------------------|------------|
| CFMNJ  | 17A MARKING PAINT ALL COLORS 220 RED            | AERVOE PACIFIC CO INC        | 07/30/1992 |
| CGWQX  | 17A MARKING PAINT ALL COLORS 220 RED FLUORESC   | AERVOE PACIFIC CO INC        | 08/19/1997 |
| CGWRG  | 17A MARKING PAINT ALL COLORS 230 RED            | AERVOE PACIFIC CO INC        | 08/19/1997 |
| CGWRH  | 17A MARKING PAINT ALL COLORS 261 RED INVERTA C. | AERVOE PACIFIC CO INC        | 08/19/1997 |
| CGWRQ  | 17A MARKING PAINT ALL COLORS 270 RED FLUORESC   | AERVOE PACIFIC CO INC        | 08/19/1997 |
| CGWRT  | 17A MARKING PAINT ALL COLORS 275 RED            | AERVOE PACIFIC CO INC        | 08/19/1997 |
| CGWRW  | 17A MARKING PAINT ALL COLORS 281 RED HIGH DELIV | AERVOE PACIFIC CO INC        | 08/19/1997 |
| CGWSB  | 17A MARKING PAINT ALL COLORS 287 RED FLUORESC   | AERVOE PACIFIC CO INC        | 08/19/1997 |
| BKKML  | 18A1 STRIPING PAINT 730 RED                     | AERVOE PACIFIC CO INC        | 08/21/1991 |
| CDKVM  | 18A1 STRIPING PAINT 730 TRAFFIC RED             | AERVOE PACIFIC CO INC        | 08/09/1994 |
| BXRMH  | 18A1 STRIPING PAINT 785 FLUORESCENT RED ORANG   | AERVOE PACIFIC CO INC        | 01/19/1993 |
| BQRXN  | 19A1 TREE MARKING PAINT RED 610                 | AERVOE PACIFIC CO INC        | 01/24/1992 |
| BGWQQ  | 202 13 RR RED PAINT SEE SUPP DATA TYPE          | DAY GLO COLOR CORP           | 12/29/1988 |
| BZCHJ  | 21 217 WAGON RED NOW SPRAY PAINT                | KRYLON DIV OF SHERWIN WILLIA | 05/01/1992 |
| CFRCR  | 2101 CHERRY RED SPRAY PAINT AEROSOL 800708      | KRYLON THE SHERWIN WILLIAM   | 04/10/1989 |
| CGBFG  | 2107 HI HEAT RED KRYLON HIGH HEAT RESISTANT PA  | KRYLON PRODUCTS GROUP        | 03/01/1995 |

**222 Records Found**

View Previous Cancel Add

## Using Product Packages to Import or Export Data

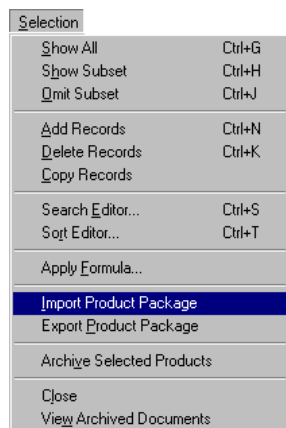
An MSDSpro Product Package is a disk file that contains one or more Product records and associated MSDS Document (Images, Text, ANSI, PDF, HTML), Synonyms, Ingredients, Chemicals, etc.

Product Packages are collections of MSDS Product information that are designed to be moved from one MSDSpro installation to another. This allows safe and secure transfer of MSDSpro data in a convenient manner among organizations and work locations.

The Product Package can be password protected if required. If a password is assigned when the Product Package is exported, MSDSpro will import the Product Package only if the correct password is given. If an MSDS ID value is present in the imported Product Package that matches an existing MSDS ID, you will be prompted.

An MSDSpro Product Package cannot be used by any other MSDS software system. It is based on an advanced internal format which is only utilized by MSDSpro and no other MSDS software.

When using the optional MSDSpro Scanning Services to supplement your organization's MSDS data entry, the MSDS data is returned to you as Product Packages that are imported from CD-ROM. Please contact your MSDSpro representative for more information about MSDS Scanning Services.



To Import a Product Package:

1. Open the *Product Output form*
2. Select **Import Product Package** from the *Selection menu*
3. Select the **MSDSproData.PKG** file to import
4. Enter the password if required
5. MSDSpro will import the Product Package



To Export a Product Package:

1. Determine which Product records to include in the **Product Package** (all records shown in the *Product Output form* will be added into the Product Package)
2. Select **Export Product Package** from the *Selection menu*
3. Select the folder to save the **MSDSproData.PKG** file
4. Enter the password if desired
5. MSDSpro will create the **MSDSproData.PKG** file at the specified folder location

## Manufacturer

The Manufacturer table stores all data for Manufacturers. A Manufacturer is entered only once. The record is then referenced by the Product table, where many Products may exist that relate to only one Manufacturer record.

A modification to the Manufacturer record is then immediately available to Products that are related to the Manufacturer record.

## Manufacturer Output Form

The screenshot displays a window titled "Manufacturer: 10 of 10". It contains a table with the following data:

| Manufacturer Name               | Address                    | City           | State/Prov | Postal Code |
|---------------------------------|----------------------------|----------------|------------|-------------|
| BOC Gases                       | 575 Mountain Avenue        | Murray Hill    | NJ         | 07974       |
| CAM2 Oil Products Company       | 380 West Butler Avenue     | New Britain    | PA         | 18901       |
| CERTIFIED LABS DIV NCH CORP     | 101 West Highway           | IRVING         | TX         | 75015       |
| Chevron USA Products Company    | 575 Market St., Room 2     | San Francisco  | CA         | 94105-2856  |
| Colonial Chemical Company       | P.O. Box 1254              | Jonesville     | MI         | 56254       |
| Discus Dental, Inc              | 433 North Camden Drive     | Beverly Hills  | CA         | 90210       |
| Hewlett-Packard Company         | 1000 NE Circle Boulevard   | Corvallis      | OR         | 97330-4239  |
| HUNTERS SPECIALTIES INC         | 6000 Huntington Court      | CEDAR RAPIDS   | IA         | 52402       |
| TEXACO REFINING & MARKETING INC | 1038 Pacific Coast Highway | Universal City | CA         | 91608       |
| WD-40 COMPANY                   | 1061 Cudahy Place          | SAN DIEGO      | CA         | 92138-0607  |

At the bottom of the window, there are buttons for "New", "Delete", "All", "Search", "Sort", and "Close".



## Manufacturer Data Entry Form

The Manufacturer name is required to be entered before saving the record.

- Enter the electronic contact information for each Manufacturer to take advantage of efficiencies, such as Fax number, E-mail address, and Internet URL locations

The screenshot shows a software window titled "Manufacturer: 8 of 9". The form contains the following fields and controls:

- Manufacturer Name:** Text box containing "Texaco Refining & Marketing, Inc."
- PO Box:** Empty text box.
- Address:** Text box containing "1038 Pacific Coast Highway".
- City:** Text box containing "Universal City".
- State/Prov:** Text box containing "CA".
- Postal Code:** Text box containing "91608".
- Country:** Empty text box.
- Phone Number:** Text box containing "(914) 838-7204".
- Emergency Phone:** Text box containing "(800) 424-9300".
- Fax Number:** Empty text box.
- Contact Name:** Text box containing "LM Boyd".
- Local Vendor:** Text box containing "ECS Commodities, Inc."
- MSDS E-Mail Address:** Text box containing "msdsrequests@texaco.com".
- MSDS URL:** Text box containing "www.texaco.com/msdsdocs/index.htm" with a "Launch" button next to it.
- Website URL:** Text box containing "www.texaco.com" with a "Launch" button next to it.
- Notes:** A large empty text area with a scroll bar.
- Navigation Buttons:** A row of four buttons: "<<<<", "<<<<|", "<<<<|>>>>", and ">>>>".
- Action Buttons:** "Delete", "Cancel", and "Save" buttons.

## Locations

The *Modify Locations* window allows modification of existing Location records and association of various hierarchies within each Location. Sublocations may be several thousand levels deep within each Location.

### Adding a Location

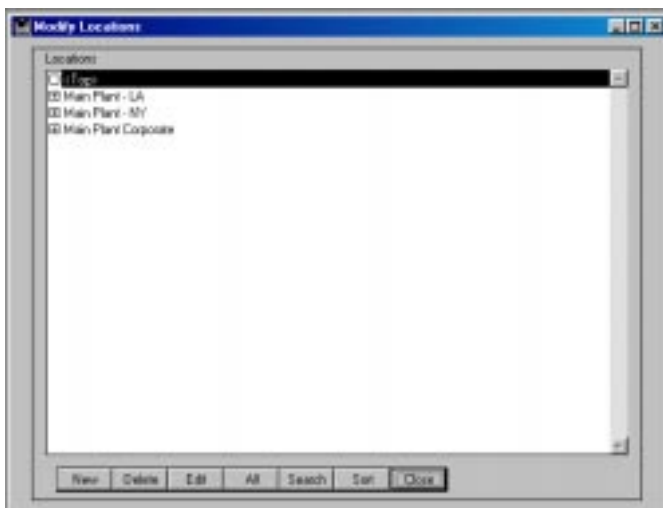
1. Click the **ADMIN** button on the Floating Toolbar

The **Data Access tab** of the *Admin Control Panel* is presented.



2. Select Locations
3. Click the **SELECT** button

The *Modify Locations* screen is displayed.



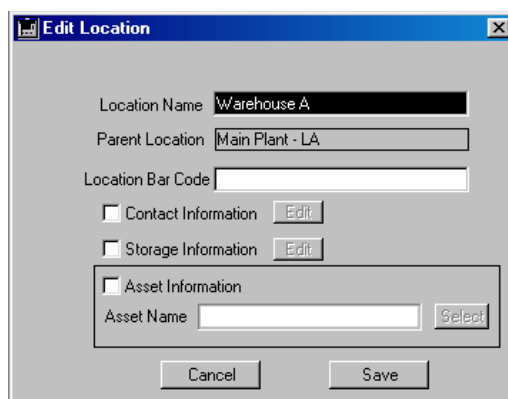
## Adding a Location (Cont'd)

**4. Click on the Location to add a Location to**

If there is a plus sign to the left of any of the existing Locations, you can click on it and drill down to the next level. Click on <TOP> to add a top level Location.

**5. Click the NEW button**

The *Edit Location* screen is presented.



The screenshot shows a dialog box titled "Edit Location". It contains the following fields and controls:

- Location Name:** A text field containing "Warehouse A".
- Parent Location:** A text field containing "Main Plant - LA".
- Location Bar Code:** An empty text field.
- Contact Information:** A checkbox that is unchecked, followed by an "Edit" button.
- Storage Information:** A checkbox that is unchecked, followed by an "Edit" button.
- Asset Information:** A checkbox that is unchecked, followed by a text field for "Asset Name" and a "Select" button.
- Buttons:** "Cancel" and "Save" buttons at the bottom.

**6. Type the name of the new level in the LOCATION NAME field**

**7. Click the SAVE button**

You are returned to the *Modify Locations* screen

**8. Click CLOSE to exit**

This information also displays when you are in the ***Inventory tab*** of a Product.

## Editing a Location

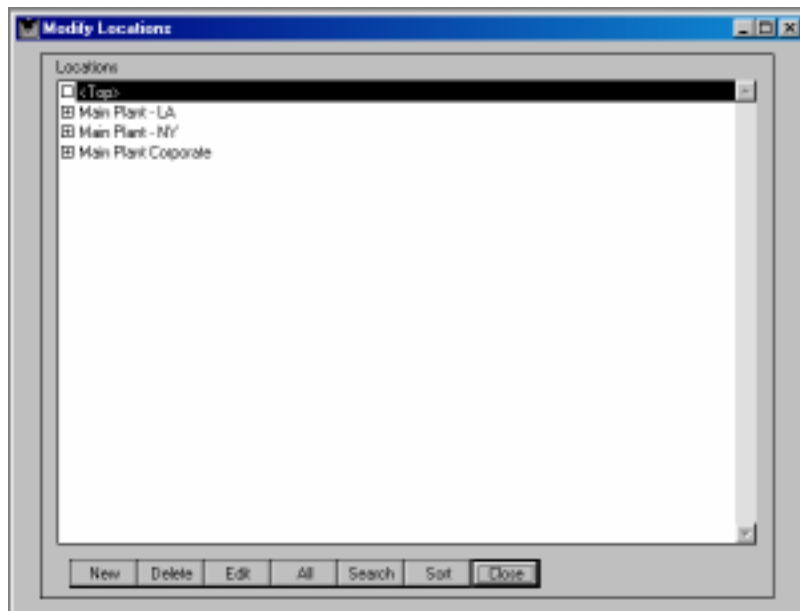
1. Click on the ADMIN button of the Floating Toolbar

The **Data Access tab** of the *Admin Control Panel* is presented.



2. Select Locations
3. Click the SELECT button

The *Modify Locations* screen is displayed.



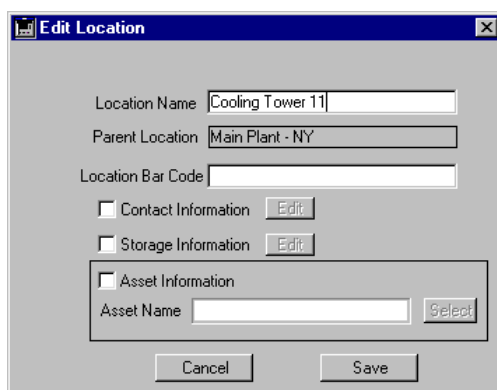
## Editing a Location (Cont'd)

### 4. Click on the Location to edit

If there is a plus sign to the left of any of the existing Locations, you can click on it and drill down to the next level. A Location can be moved from one level to another by clicking and dragging it.

### 5. Click the EDIT button

The *Edit Location* screen is presented.



The screenshot shows a dialog box titled "Edit Location". It contains the following fields and controls:

- Location Name:** A text box containing "Cooling Tower 11".
- Parent Location:** A text box containing "Main Plant - NY".
- Location Bar Code:** An empty text box.
- Contact Information:** A checkbox that is unchecked, followed by an "Edit" button.
- Storage Information:** A checkbox that is unchecked, followed by an "Edit" button.
- Asset Information:** A checkbox that is unchecked, followed by a text box for "Asset Name" and a "Select" button.
- Buttons:** "Cancel" and "Save" buttons at the bottom.

### 6. Edit the Location name, the Location Bar Code, who to contact in an emergency, how to store the material, Asset Information and Asset Name

The Location Bar Code is for scanning and tracking stored material and relevant MSDS information.

### 7. Click the SAVE button

## Deleting a Location

### 1. Click on the ADMIN button of the Floating Toolbar

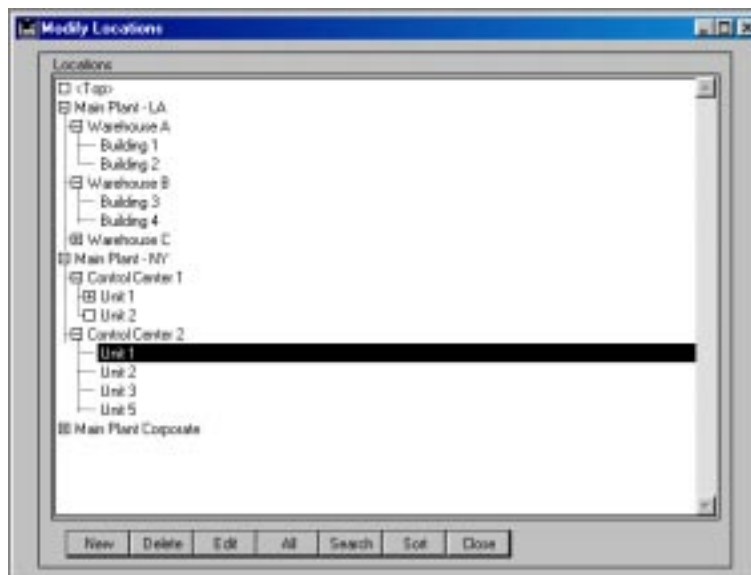
The **Data Access tab** of the *Admin Control Panel* is presented.

### 2. Select Locations

### 3. Click the SELECT button

The *Modify Locations* screen is displayed.

## Deleting a Location (Cont'd)



**4. Click on the Location you want to delete**

If there is a plus sign to the left of any of the existing Locations, you can click on it and drill down to the next level.

**5. Click the DELETE button**

**6. Confirm the delete action**

The Location and all related Inventory records are deleted.

**7. Click the CLOSE button**

## Moving Locations

**1 Click on the ADMIN button of the Floating Toolbar**

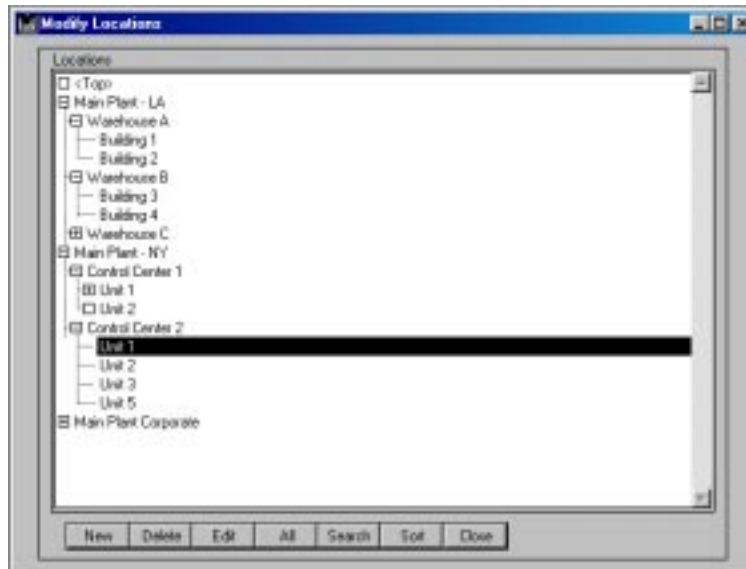
The **Data Access tab** of the *Admin Control Panel* is presented.

**2. Select Locations**

**3. Click the SELECT button**

The *Modify Locations* screen is displayed.

## Moving Locations (Cont'd)



**4. Select the Location you want to move**

If there is a plus sign to the left of a Location, you can click on it to drill down to the next level.

**5. Drag the Location to move it from one level to another**

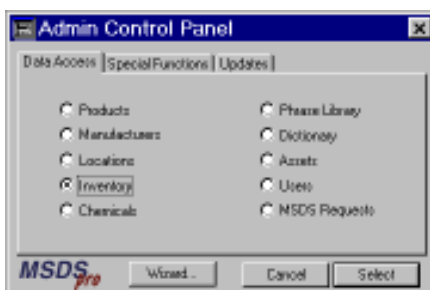
## Inventory

The Inventory section allows access to Inventory records, the records that identify which products are stored at which locations.

### Accessing Inventory Records

1. Click the **ADMIN** button on the Floating Toolbar

The **Data Access tab** of the *Admin Control Panel* is presented.



2. Select Inventory
3. Click the **SELECT** button

The Select Inventory View screen appears

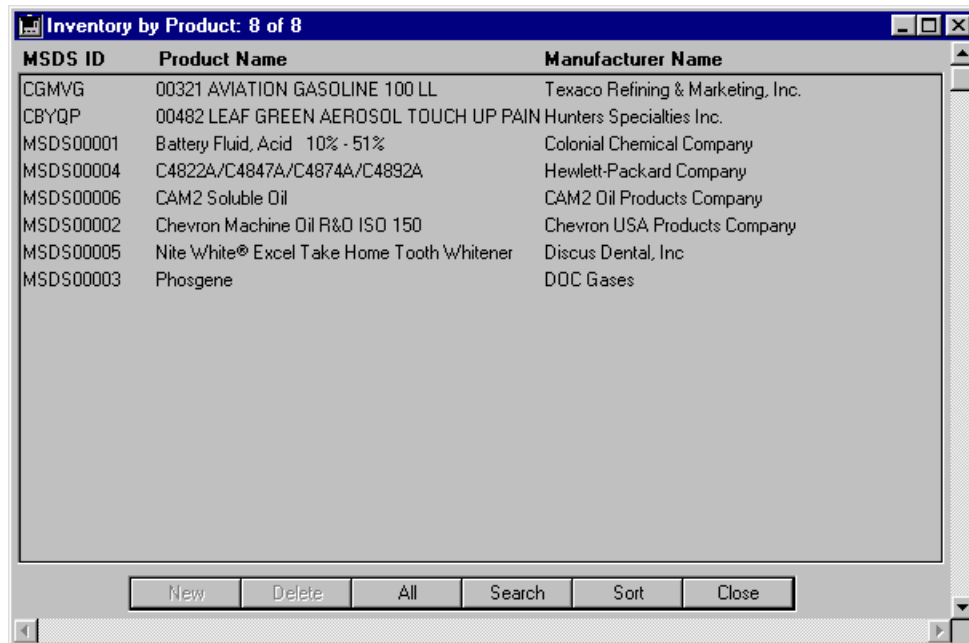


To access Inventory information listed by Product Name, select *Inventory by Product*.



## Inventory by Product Output Form

Choosing Inventory by Product will display the *Inventory by Product Output form*. By double-clicking on one of the listed Product records, the inventory locations for that given product are listed in the *Inventory by Product Data Entry form*.



| MSDS ID   | Product Name                               | Manufacturer Name                 |
|-----------|--|-----------------------------------|
| CGMVG     | 00321 AVIATION GASOLINE 100 LL             | Texaco Refining & Marketing, Inc. |
| CBYQP     | 00482 LEAF GREEN AEROSOL TOUCH UP PAIN     | Hunters Specialties Inc.          |
| MSDS00001 | Battery Fluid, Acid 10% - 51%              | Colonial Chemical Company         |
| MSDS00004 | C4822A/C4847A/C4874A/C4892A                | Hewlett-Packard Company           |
| MSDS00006 | CAM2 Soluble Oil                           | CAM2 Oil Products Company         |
| MSDS00002 | Chevron Machine Oil R&D ISO 150            | Chevron USA Products Company      |
| MSDS00005 | Nite White® Excel Take Home Tooth Whitener | Discus Dental, Inc                |
| MSDS00003 | Phosgene                                   | DOC Gases                         |

New Delete All Search Sort Close

## Inventory by Product Data Entry Form

The *Inventory by Product Data Entry form* displays one Product and all of its associated Inventory records.

The screenshot shows a software window titled "Inventory by Product: 1 of 9". It contains several input fields and a tree view. The "Product Name" field is filled with "00321 AVIATION GASOLINE 100 LL". The "Manufacturer Name" field is filled with "TEXACO REFINING & MARKETING INC". The "MSDS ID" field is filled with "CGMV6". A tree view on the left shows a hierarchy: "Facility ABC" (expanded) contains "East Forge" (expanded) which contains "11 K Forge (C)" (expanded) which contains "Heat Treat (A)" (selected) and "Met Lab (B)". "West Forge" (expanded) contains "Die Inspection (J)", "Garage (O)", and "Maintenance (M)". To the right of the tree view are two input fields: "Start Date" with the value "01/01/98" and "Max Amount Daily" with the value "2111.11". At the bottom of the window are four buttons: "Add", "Edit", "Remove", and "Cancel". There are also "Save" and "Cancel" buttons at the bottom right.

- The Start Date field displays the date the Product was first stored at this Location
- The Maximum Amount Daily field lists the maximum amount of the Product that has ever been stored at a Location
- Click the ADD button to add the Product to any Location
- Click the DELETE button to delete the Product from the selected Location
- Click the EDIT button or Double-click a Location to modify information on the selected Location

Clicking on the **ADD** or **EDIT** buttons loads the *Inventory Data Entry form*.

## Inventory Data Entry Form

The *Inventory Data Entry form* is where Products are added as Inventory to a Location. Additional information related to Product Inventory and the *SARA Title III (Tier 2)* report is also added or modified on this form. The *Inventory Data Entry form* contains three internal tabs; the **Physical Inventory tab**, the **SARA Inventory tab** and the **SARA Containers tab**.

The screenshot shows the 'Edit Inventory record' window. Annotations point to various fields:

- Click here to view a list of all existing locations**: Points to the 'Select' button next to the 'Storage Name' field.
- Click here to view a list of all existing products**: Points to the 'Select' button next to the 'Product Name' field.
- Enter start and end dates here**: Points to the 'Start Date' and 'End Date' fields.
- Check here to flag the product as Non-Periodic**: Points to the 'Non Periodic' checkbox.
- Enter additional information about Product Inventory here**: Points to the 'Notes' text area.

The form fields include:

- Product Name: Aniline blue
- Storage Name: Main Plant Corporate
- Description: (empty)
- Storage Location: Main Plant Corporate
- Physical Inventory | SARA Inventory | SARA Containers (tabs)
- Start Date: 00/00/00
- End Date: 00/00/00
- Non Periodic: ☐
- Temperature: 0
- Inventory Person: (empty)
- Solid: ☐ Liquid: ☐ Gas: ☐
- Disposal Method: (empty)
- Density lbs/: 4.692
- Specific Gravity: 0
- Buttons: Delete, Cancel, Save

### The Physical Inventory tab:

The **Physical Inventory tab** is where all the information relating to storing the Product at this Location is entered.

- Click the **SELECT** button to the right of the **Product Name** field, a list of all **Product records** in the **MSDSpro database** will appear

From this list, select the Product to be added as Inventory. If a Product does not appear in the listing, the Product has not yet been created within MSDSpro.

- Click the **SELECT** button to the right of the **Storage Name** field and a list of all **Storage Locations** will appear

From this list, select the Location to which the Product is to be added as Inventory. If a Location does not appear in the listing, the Location has not yet been created within MSDSpro. Locations are covered on pp. 4-43 through 4-48.

## Inventory Data Entry Form (Cont'd)

- Enter into the Start and End Date fields the dates that the Product started and stopped being stored at that Location
- Check the Non-Periodic checkbox if the Product should be included in the *SARA Title III (Tier 2)* regardless of start and end dates
- The Temperature field lists at what temperature the Product is stored

The Temperature field is usually only used if the Product will be stored in a chilled or heated state. For SARA reporting the containers have SARA codes related to temperature.

- Enter into the Inventory Person field the name of the individual responsible for tracking the inventory of the product at this location
- The Solid, Liquid or Gas checkboxes list the state(s) of the Product
- The Disposal Method field details how the Product will be discarded
- The Notes field is used to enter additional information relating to Product Inventory

## Inventory Data Entry Form (cont'd)

### The Sara Inventory tab:

The fields on the **SARA Inventory tab** are used in calculating Inventory quantities for the *SARA Title III (Tier 2)* report.

The screenshot shows the 'Edit Inventory record' dialog box. At the top, there are fields for 'Product Name' (Aniline blue) and 'Storage Name' (Main Plant Corporate), each with a 'Select' button. Below these are 'Description' and 'Storage Location' (Main Plant Corporate). A tabbed interface shows 'Physical Inventory', 'SARA Inventory' (selected), and 'SARA Containers'. The 'SARA Inventory' tab contains a section 'Calculate Inventory Quantities From' with two radio buttons: 'Containers' (selected) and 'Manual Only'. Below this are three input fields: 'Days On Site' (0), 'Max Amount Daily' (0), and 'Average Amount Daily' (0), each with a 'Calculate' button. To the right is a 'SARA Notes' text area. At the bottom right of the tab are 'SARA Report Usage' and 'Inventory Type' dropdown menus. At the very bottom of the dialog are 'Delete', 'Cancel', and 'Save' buttons.

- Selecting the Containers radio button will set MSDSpro to automatically calculate the quantity of the Product stored at the selected Location
- If the Manual Only radio button is selected, MSDSpro will not calculate Product quantities

Use this option if the Product quantities are to be entered manually into MSDSpro.

- The Days on Site field lists the total number of days a Product has been stored at a Location
- The Maximum Amount Daily field lists the maximum amount of the Product that has been stored at the specified Location
- The Average Amount Daily field lists the average amount of the Product that has been stored as Inventory
- The Inventory Type field gives information on how the Product is used

## Inventory Data Entry Form (cont'd)

### The Sara Inventory tab (cont'd):

- The **SARA Report Usage** Field controls whether MSDSpro should include this Product when a **SARA Title III (Tier 2)** report

By default MSDSpro will automatically will compare product quantities stored with minimum amounts required for inclusion in the **SARA Title III (Tier 2)** report. If this Product is to be included or excluded in the **SARA Title III (Tier 2)** report by default, select that option from this field.

### The Sara Containers tab:

The fields on the **SARA Containers tab** report information relating to the physical containers that are used to store a Product as Inventory. Some of these fields are also used in calculating quantities for **SARA Title III (Tier 2)** reporting. MSDSpro can track a Product stored in many different types of containers at one Location. To begin entering information on the type of containers used to store a Product, click on the **ADD** button.

Click here to begin entering information on the type of containers used to store a Product

The screenshot shows the 'Edit Inventory record' window with the 'SARA Containers' tab selected. The 'Add' button is highlighted by a callout line from the text 'Click here to begin entering information on the type of containers used to store a Product'.

- The **Item Number** field stores an internal company code assigned to a Product for the purpose of tracking Inventory

## Inventory Data Entry Form (cont'd)

### The Sara Containers tab (cont'd):

- **Number of Containers:** The Number of Containers field lists the quantity of containers that are used to store the Product as Inventory

For example, if a Product is stored at a Location in ten 55-gallon drums, the Number of Containers field should contain the number ten.

- **Container Size:** The Container Size field lists the size of each container

Using our previous example, the Container Size field should contain the number fifty-five.

- **Container Unit:** The Container Unit field lists the units of weight or volume that the Inventory quantity is measured in

Using our previous example, the Container Unit field should contain the word gallons.

- **Days on Site:** The Days on Site field lists the number of days that the product is stored as Inventory

- **The Maximum Amount Daily** field lists the maximum amount of the Product that has ever been stored at the specified Location

- **The Average Amount Daily** field lists the average amount of the Product that has been stored as Inventory

- **The Container Type** field lists the type of container used to store the Product

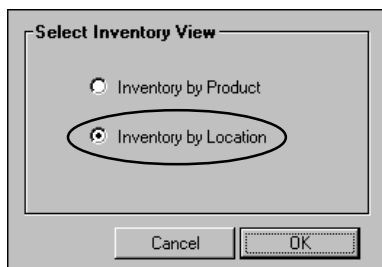
- **The Container Pressure** field details whether the Product will be compressed, expanded or stored at the ambient pressure

- **The Container Temperature** field details whether the product will be heated, chilled or stored at the ambient temperature

## Inventory by Location

The Inventory section allows access to Inventory records (the records that link a Product to a Storage Location).

To access Inventory information listed by Location Name, select *Inventory by Location*:



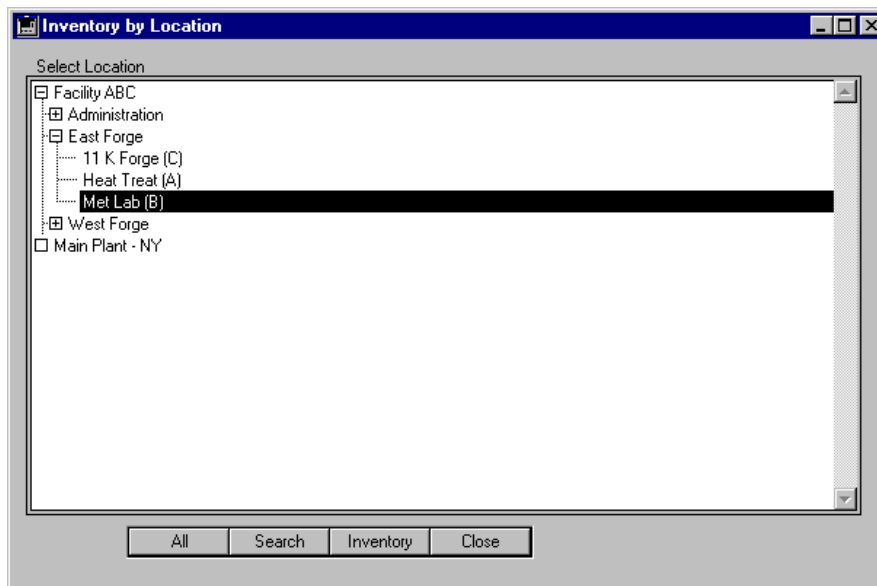
Choosing Inventory by Location will display the Inventory by Location display form.

## Inventory by Location Display Form

To modify or view an Inventory record by using the *Inventory by Location* window:

1. **Select (highlight) the Location with associated Inventory to edit or view**
2. **Click the INVENTORY button**

The Inventory by Location *Data Entry form* is displayed





## Inventory by Location Data Entry Form

The Inventory by Location *Data Entry form* displays one Storage Location and all of its associated Inventory records.

- Click the **ADD** button to add a new Inventory record
- Click the **DELETE** button to delete a highlighted Inventory record
- Double-click an Inventory record to modify it

| Start Date | Product Name                   | Manufacturer Name               | MSDS ID   |
|------------|--------------------------------|---------------------------------|-----------|
| 01/01/1998 | C4822A/C4847A/C4874A/C4892A    | Hewlett-Packard Company         | MSDS00004 |
| 01/01/1998 | Battery Fluid, Acid 10% - 51%  | Colonial Chemical Company       | MSDS00001 |
| 01/01/1998 | 00321 AVIATION GASOLINE 100 LL | TEXACO REFINING & MARKETING INC | CGMVG     |

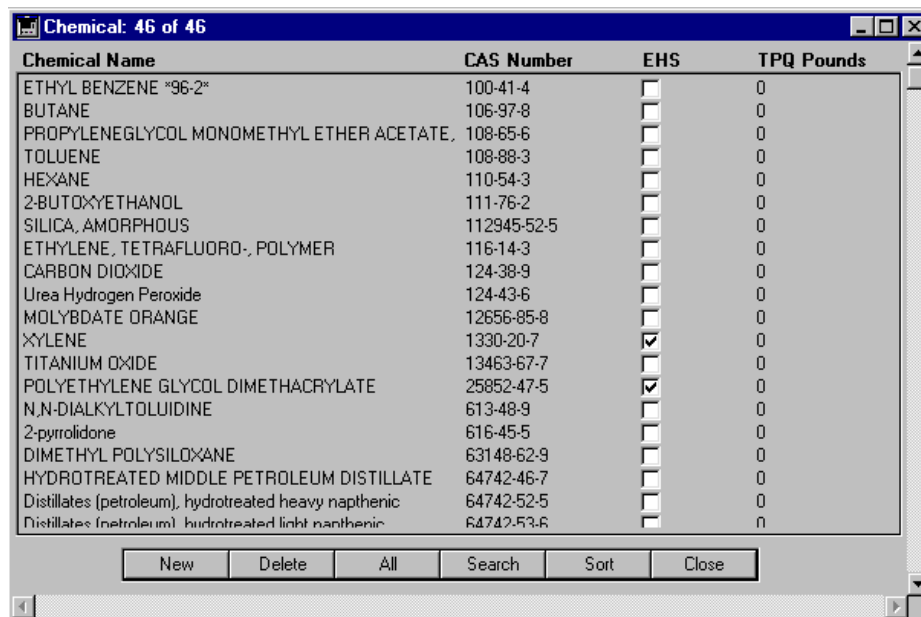
Double-clicking an existing Product Name displays the Inventory *Data Entry form* for edit.

## Chemical

The Chemical table records information about Chemicals. Chemical CAS numbers are not considered unique. Two or more Chemical records may share the same CAS number if needed.

Chemical records contain information that is stored only once. Many Products may use each Chemical through the use of Ingredients (available within the Products *Data Entry form* **Ingredient tab**.)

## Chemical Output Form

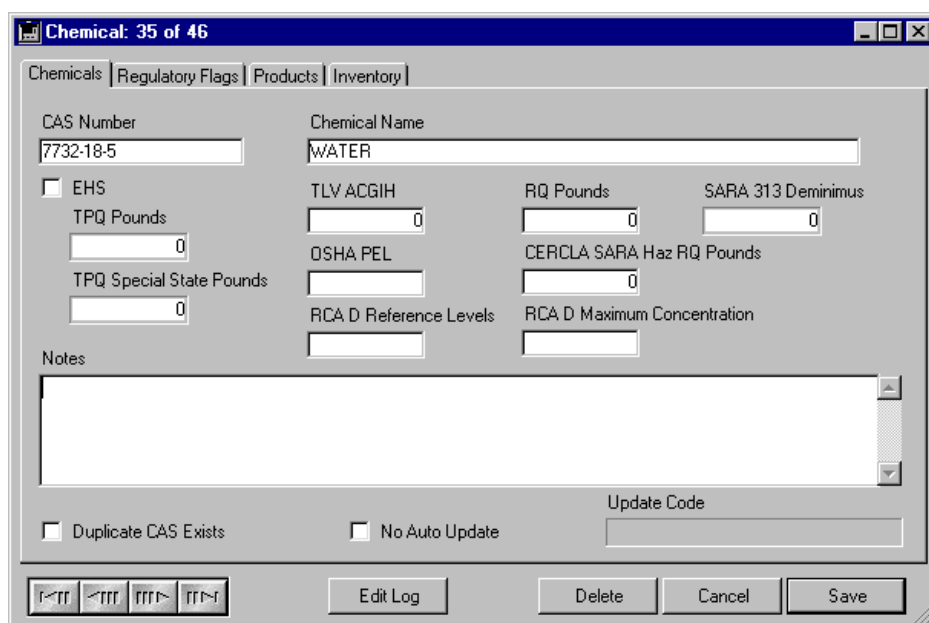


| Chemical Name  | CAS Number  | EHS                                 | TPQ Pounds |
|--|-------------|-------------------------------------|------------|
| ETHYL BENZENE "96-2"                                   | 100-41-4    | <input type="checkbox"/>            | 0          |
| BUTANE   | 106-97-8    | <input type="checkbox"/>            | 0          |
| PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE               | 108-65-6    | <input type="checkbox"/>            | 0          |
| TOLUENE  | 108-88-3    | <input type="checkbox"/>            | 0          |
| HEXANE   | 110-54-3    | <input type="checkbox"/>            | 0          |
| 2-BUTOXYETHANOL  | 111-76-2    | <input type="checkbox"/>            | 0          |
| SILICA, AMORPHOUS                                      | 112945-52-5 | <input type="checkbox"/>            | 0          |
| ETHYLENE, TETRAFLUORO-, POLYMER                        | 116-14-3    | <input type="checkbox"/>            | 0          |
| CARBON DIOXIDE   | 124-38-9    | <input type="checkbox"/>            | 0          |
| Urea Hydrogen Peroxide                                 | 124-43-6    | <input type="checkbox"/>            | 0          |
| MOLYBDATE ORANGE                                       | 12656-85-8  | <input type="checkbox"/>            | 0          |
| XYLENE   | 1330-20-7   | <input checked="" type="checkbox"/> | 0          |
| TITANIUM OXIDE   | 13463-67-7  | <input type="checkbox"/>            | 0          |
| POLYETHYLENE GLYCOL DIMETHACRYLATE                     | 25852-47-5  | <input checked="" type="checkbox"/> | 0          |
| N,N-DIALKYL TOLUIDINE                                  | 613-48-9    | <input type="checkbox"/>            | 0          |
| 2-pyrrolidone  | 616-45-5    | <input type="checkbox"/>            | 0          |
| DIMETHYL POLYSILOXANE                                  | 63148-62-9  | <input type="checkbox"/>            | 0          |
| HYDROTREATED MIDDLE PETROLEUM DISTILLATE               | 64742-46-7  | <input type="checkbox"/>            | 0          |
| Distillates (petroleum), hydrotreated heavy naphthenic | 64742-52-5  | <input type="checkbox"/>            | 0          |
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6  | <input type="checkbox"/>            | 0          |

New Delete All Search Sort Close

## Chemical Data Entry Form - Chemicals Tab

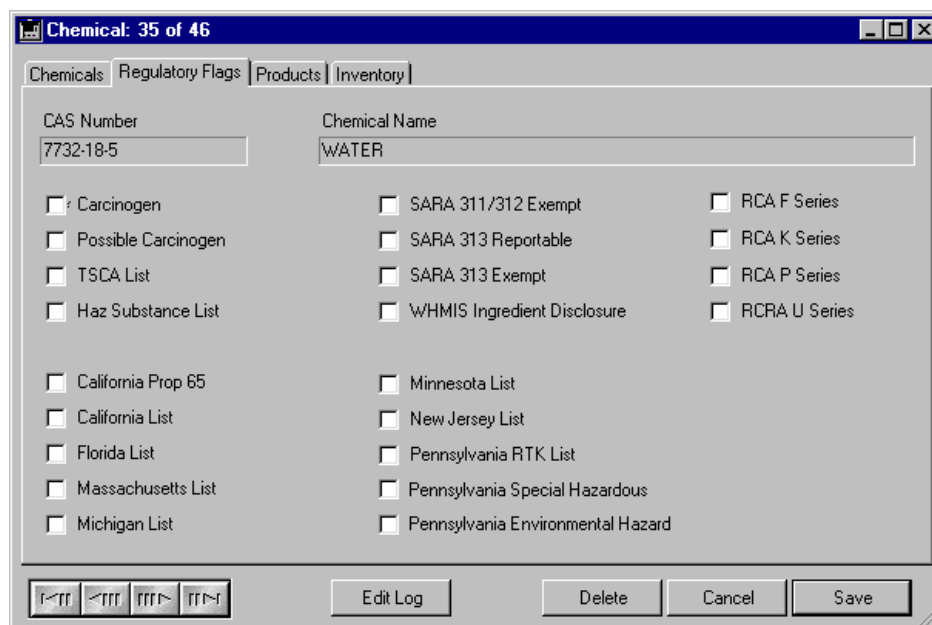
The **Chemicals tab** allows the CAS number to be entered for a Chemical Name, as well as EHS (Extremely Hazardous Substance), EHS TPQ, TSCA, Carcinogen, TLV ACGIH, OSHA PEL, and various SARA flags. CAS Number data entry is checked to verify that the CAS Number is valid.



The screenshot shows the 'Chemical: 35 of 46' window with the 'Chemicals' tab selected. The 'CAS Number' field contains '7732-18-5' and the 'Chemical Name' field contains 'WATER'. Below these are several input fields for regulatory data: 'EHS' (checkbox), 'TPQ Pounds' (0), 'TPQ Special State Pounds' (0), 'TLV ACGIH' (0), 'OSHA PEL' (empty), 'RCA D Reference Levels' (empty), 'RQ Pounds' (0), 'CERCLA SARA Haz RQ Pounds' (0), 'SARA 313 De minimus' (0), and 'RCA D Maximum Concentration' (empty). A 'Notes' text area is at the bottom left. At the bottom right are checkboxes for 'Duplicate CAS Exists' and 'No Auto Update', and an 'Update Code' field. Navigation buttons (back, forward, etc.) and 'Edit Log', 'Delete', 'Cancel', and 'Save' buttons are at the very bottom.

## Chemical Data Entry Form - Regulatory Flags Tab

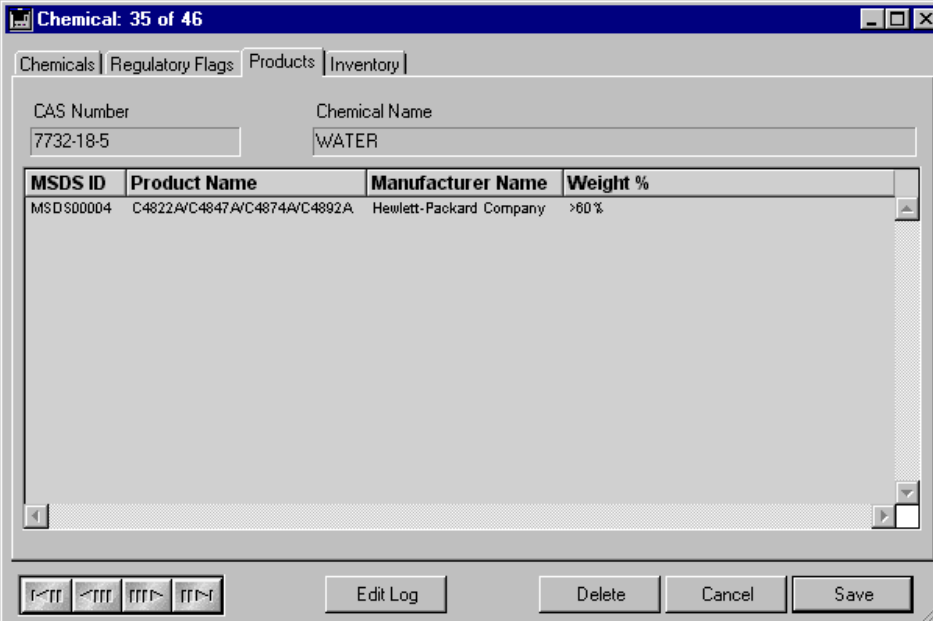
The **Regulatory Flags tab** displays the federal and state qualifications for this Chemical.



The screenshot shows the 'Chemical: 35 of 46' window with the 'Regulatory Flags' tab selected. The 'CAS Number' field contains '7732-18-5' and the 'Chemical Name' field contains 'WATER'. The tab displays a grid of checkboxes for various regulatory flags: 'Carcinogen', 'Possible Carcinogen', 'TSCA List', 'Haz Substance List', 'California Prop 65', 'California List', 'Florida List', 'Massachusetts List', 'Michigan List', 'SARA 311/312 Exempt', 'SARA 313 Reportable', 'SARA 313 Exempt', 'WHMIS Ingredient Disclosure', 'Minnesota List', 'New Jersey List', 'Pennsylvania RTK List', 'Pennsylvania Special Hazardous', 'Pennsylvania Environmental Hazard', 'RCA F Series', 'RCA K Series', 'RCA P Series', and 'RCRA U Series'. At the bottom are navigation buttons and 'Edit Log', 'Delete', 'Cancel', and 'Save' buttons.

## Chemical Data Entry Form - Products Tab

The **Products tab** displays all Products which contain this Chemical as an Ingredient.



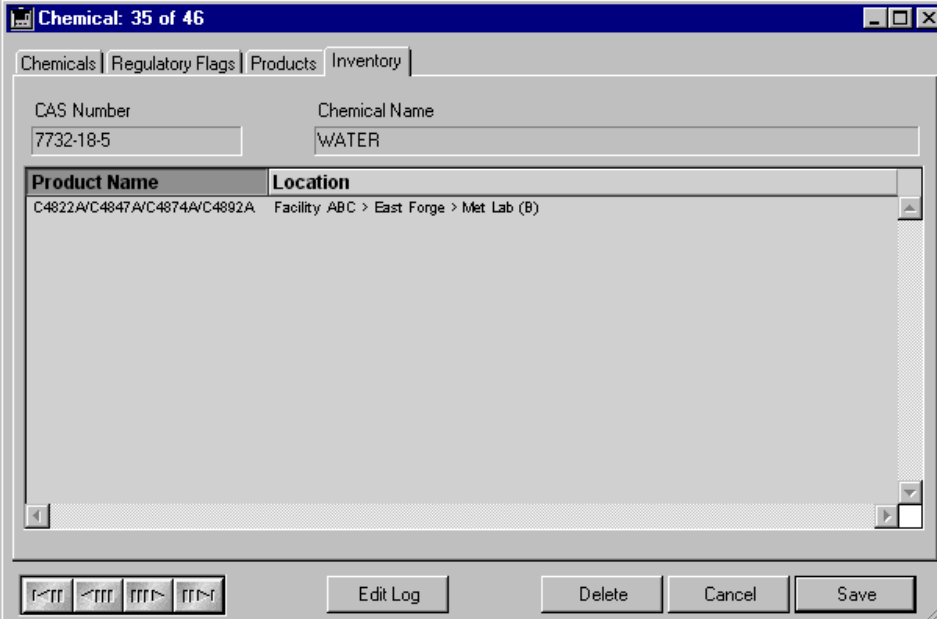
The screenshot shows a software window titled "Chemical: 35 of 46". It has four tabs: "Chemicals", "Regulatory Flags", "Products", and "Inventory". The "Products" tab is selected. Below the tabs, there are two input fields: "CAS Number" with the value "7732-18-5" and "Chemical Name" with the value "WATER". Below these fields is a table with the following data:

| MSDS ID   | Product Name                | Manufacturer Name       | Weight % |
|-----------|-----------------------------|-------------------------|----------|
| MSDS00004 | C4822A/C4847A/C4874A/C4892A | Hewlett-Packard Company | >60%     |

At the bottom of the window, there are four navigation buttons (left arrow, right arrow, double left arrow, double right arrow), an "Edit Log" button, and three buttons labeled "Delete", "Cancel", and "Save".

## Chemical Data Entry Form - Inventory Tab

The **Inventory tab** displays the locations where this Chemical is stored.



The screenshot shows the same software window as above, but with the "Inventory" tab selected. The "CAS Number" and "Chemical Name" fields remain the same. Below them is a table with the following data:

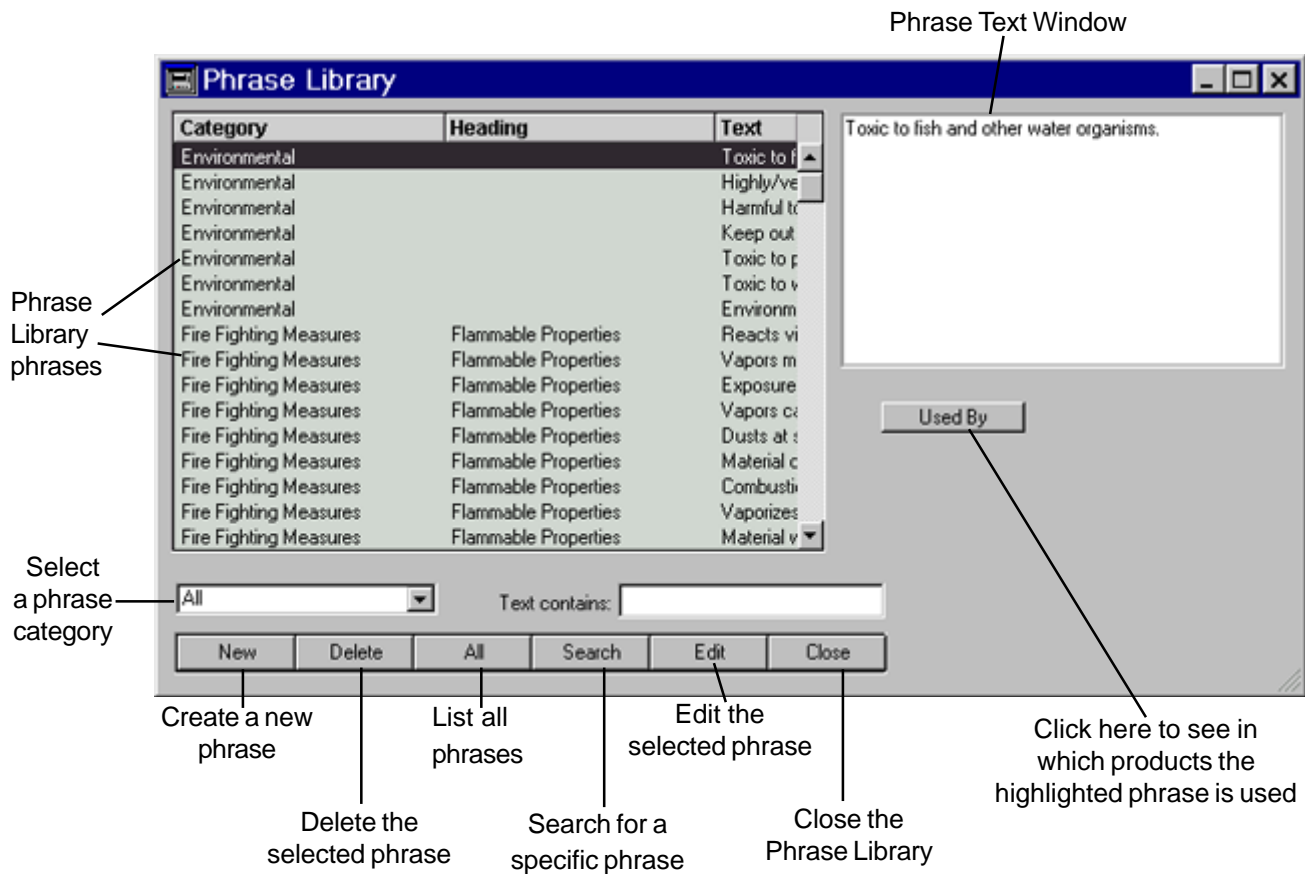
| Product Name                | Location                                |
|-----------------------------|---|
| C4822A/C4847A/C4874A/C4892A | Facility ABC > East Forge > Met Lab (B) |

The bottom of the window features the same navigation buttons, "Edit Log" button, and "Delete", "Cancel", and "Save" buttons as the previous screenshot.

## Phrase Library

The Phrase Library is used to store commonly used phrases that describe characteristics of one or more products. Using the Phrase Library is the fastest and easiest way to add common information to a product record or ANSI Document. A phrase library record may be associated with any product record. When a phrase library record is modified, all product records or ANSI Documents using that phrase will also be updated.

### Phrase Library Output Form



- Click on an individual phrase to view the phrase text in the Phrase Text Window.
- Open the Phrase Category pull down menu to select a specific phrase library category. This will cause only phrases in that category to be listed.
- Click on the NEW button to begin adding a new phrase to the phrase library. See pp. 4-57) on adding a new phrase to the phrase library.
- Click on the DELETE button to delete the highlighted phrase from the phrase library.
- Use the Text Contains field to search all phrases for a specific string of text.

## Phrase Library cont'd

- Upon opening the *Phrase Library Output form*, only active Phrase Library records are shown. To view all records (including inactive Phrase Library records), click on the ALL button.
- Click on the EDIT button to modify an existing phrase.
- Click on the SEARCH button to search the Phrase Library. See pp. 4-58 on searching the phrase library.
- The USED BY button reveals which product records contain the selected phrase.

### Adding a new phrase to the Phrase Library:

New phrases can be added to the Phrase Library by clicking on the **NEW** button in the lower left hand corner of the *Phrase Library Output form*. Clicking on the **NEW** button brings up the *Phrase Library: Adding new record Data Entry form*.

Click here to create a new category

1. Select the category that describes the phrase most accurately. If desired, create a new category by clicking on the NEW button, typing in the name of the new category and clicking the OK button.

## Phrase Library cont'd

2. Fill in the Heading and Title fields so that the new phrase is accurately summarized.

The Heading field acts as a subcategory to the Category field and provides additional information as to the subject of the phrase. The Title field gives a brief description as to what the phrase will describe.

3. Enter today's date in the Date Started field. If the phrase is to become inactive on a set date, enter that date into the Date Ended field.
4. Select the language in which the new phrase will be written.
5. Click on the *Phrase Text* tab. Enter the new phrase into the Phrase Text field.
6. Click on the SAVE button to finish adding the new phrase to the Phrase Library.

## Editing an existing Phrase

Existing phrases can be modified by clicking on the **EDIT** button along the bottom of the *Phrase Library Output form*. The process for editing an existing phrase is the same as creating a new phrase. Rather than entering new information however, modify the existing information as necessary.

## Searching the Phrase Library

To locate a specific phrase within the Phrase Library click on the **SEARCH** button along the bottom of the *Phrase Library Output form*. To search all phrases for a specific string of text type the words into the Text Contains field and hit the Enter key to start the search.

Clicking on the **SEARCH** button along the bottom of the *Phrase Library Output form* loads the Query Editor. Use of the Query Editor is covered on pp 3-8 through 3-12.

## Adding Existing Phrases to the Product Record

To add an existing phrase to the Product Record:

1. From the *Phrase Library Output form* select the phrase to be added. The Product Record must be at least partially visible behind the Phrase Library.
2. Holding down the left mouse button, move the mouse cursor over the Product Record.
3. Release the left mouse key. The phrase will now appear in the Product Record. This procedure is known as drag and drop.

## Phrase Library cont'd

### Adding Existing Phrases to an ANSI 16 Section Document

To add an existing phrase to an ANSI 16 Section Document:

1. **Open the desired Product record.**
2. **Make sure ANSI Document is selected as the Document Type.**
3. **Click on the *Document* tab.**
4. **Select the tab under which the phrase(s) will be added. Phrases can be added to sections 3-16.**
5. **Click on the PHRASE LIBRARY button in the lower left hand corner of the ANSI 16 Section Document.**
6. **The ANSI 16 Section Document must be at least partially visible behind the Phrase Library.**
7. **Holding down the left mouse button, move the mouse cursor over the ANSI 16 Section Document.**
8. **Release the left mouse key. The phrase will now appear in the ANSI 16 Section Document. This procedure is known as drag and drop.**

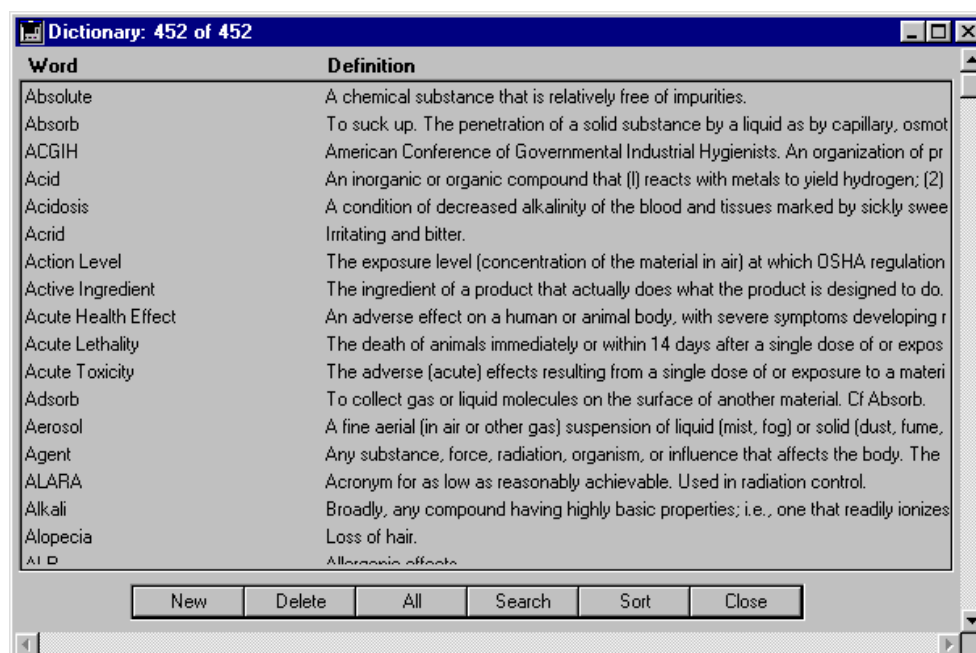


## Dictionary

The Dictionary table is used to store commonly used words and definitions. These definitions are made available to the system users through the MSDS Document Define Word button.

The NFPA/HMIS Hazard Definitions are also stored in the Dictionary table, and can be edited at any time.

## Dictionary Output Form



The screenshot shows a window titled "Dictionary: 452 of 452". It contains a table with two columns: "Word" and "Definition". The table lists various terms and their meanings. At the bottom of the window, there are buttons for "New", "Delete", "All", "Search", "Sort", and "Close".

| Word                | Definition   |
|---------------------|--|
| Absolute            | A chemical substance that is relatively free of impurities.                                |
| Absorb              | To suck up. The penetration of a solid substance by a liquid as by capillary, osmot        |
| ACGIH               | American Conference of Governmental Industrial Hygienists. An organization of pr           |
| Acid                | An inorganic or organic compound that (1) reacts with metals to yield hydrogen; (2)        |
| Acidosis            | A condition of decreased alkalinity of the blood and tissues marked by sickly swee         |
| Acrid               | Irritating and bitter.   |
| Action Level        | The exposure level (concentration of the material in air) at which OSHA regulation         |
| Active Ingredient   | The ingredient of a product that actually does what the product is designed to do.         |
| Acute Health Effect | An adverse effect on a human or animal body, with severe symptoms developing r             |
| Acute Lethality     | The death of animals immediately or within 14 days after a single dose of or expos         |
| Acute Toxicity      | The adverse (acute) effects resulting from a single dose of or exposure to a materi        |
| Adsorb              | To collect gas or liquid molecules on the surface of another material. Cf Absorb.          |
| Aerosol             | A fine aerial (in air or other gas) suspension of liquid (mist, fog) or solid (dust, fume, |
| Agent               | Any substance, force, radiation, organism, or influence that affects the body. The         |
| ALARA               | Acronym for as low as reasonably achievable. Used in radiation control.                    |
| Alkali              | Broadly, any compound having highly basic properties; i.e., one that readily ionizes       |
| Alopecia            | Loss of hair.  |
| Allergen            | Allergic effects.  |

## Dictionary Data Entry Form

The Dictionary table is used to store commonly used words and definitions. These definitions are made available to the system users through the MSDS Document Define Word button.

The NFPA/HMIS Hazard Definitions are also stored in the Dictionary table.

The NFPA records are stored with words starting with "N". The Type of Rating is "H", "F", or "R". For example, the definition for NFPA Health 2 is stored in the Dictionary record as word "NH2", etc.

The HMIS records are stored with words starting with "H". The Type of Rating is "H", "F", or "R". For example, the definition for HMIS Health 2 is stored in the Dictionary record as word "HH2", etc.

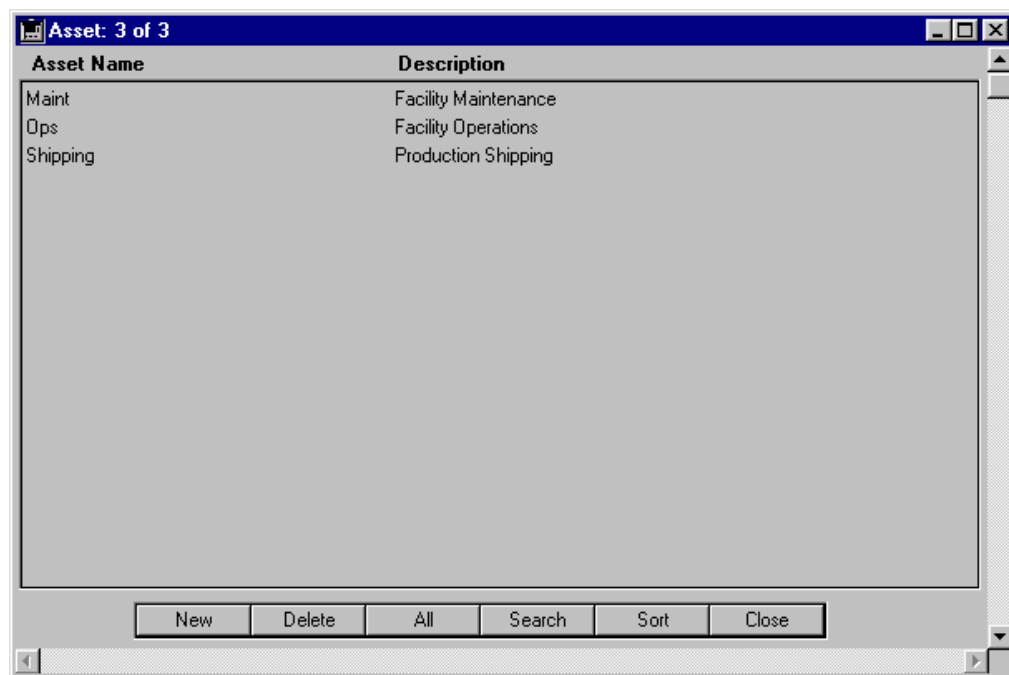
The screenshot shows a window titled "Dictionary: 3 of 452". Inside the window, there is a text box labeled "Word" containing the text "ACGIH". Below this text box is a larger text area containing the definition: "American Conference of Governmental Industrial Hygienists. An organization of professionals in governmental agencies or educational institutions engaged in occupational safety and health programs. ACGIH develops and publishes recommended occupational exposure limits for chemical substances and physical agents (see TLV). (6500 Glenway Avenue, Bldg. D-7, Cincinnati, OH 45211; [513] 661-7881)". At the bottom of the window, there are four buttons: "SpellCheck", "Delete", "Cancel", and "Save".

## Asset

The Asset table is used to categorize any Location records. By modifying a record in the Asset table, changes will immediately take effect in the Location lookup values.

Asset records are helpful to categorize Location records (and subsequently, all Sublocations and Inventory records that are associated with them), but Asset records are not mandatory to be assigned to a Location record.

### Asset Output Form

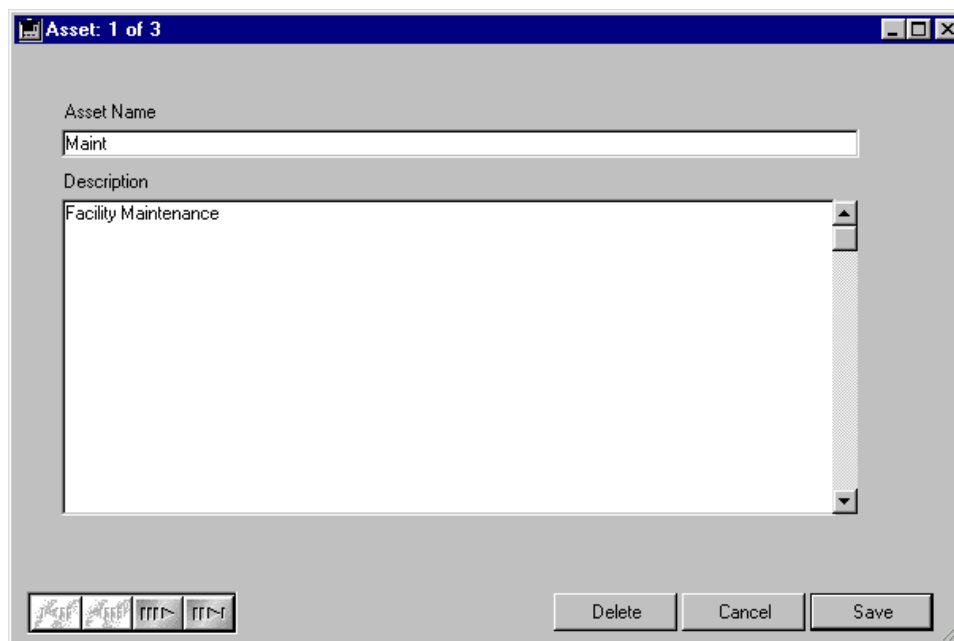


The screenshot shows a window titled "Asset: 3 of 3". Inside the window is a table with two columns: "Asset Name" and "Description". The table contains three rows of data. Below the table is a row of buttons: "New", "Delete", "All", "Search", "Sort", and "Close".

| Asset Name | Description          |
|------------|----------------------|
| Maint      | Facility Maintenance |
| Ops        | Facility Operations  |
| Shipping   | Production Shipping  |

## Asset Data Entry Form

The *Asset Data Entry form* allows the entry of the Asset Name and Description fields.



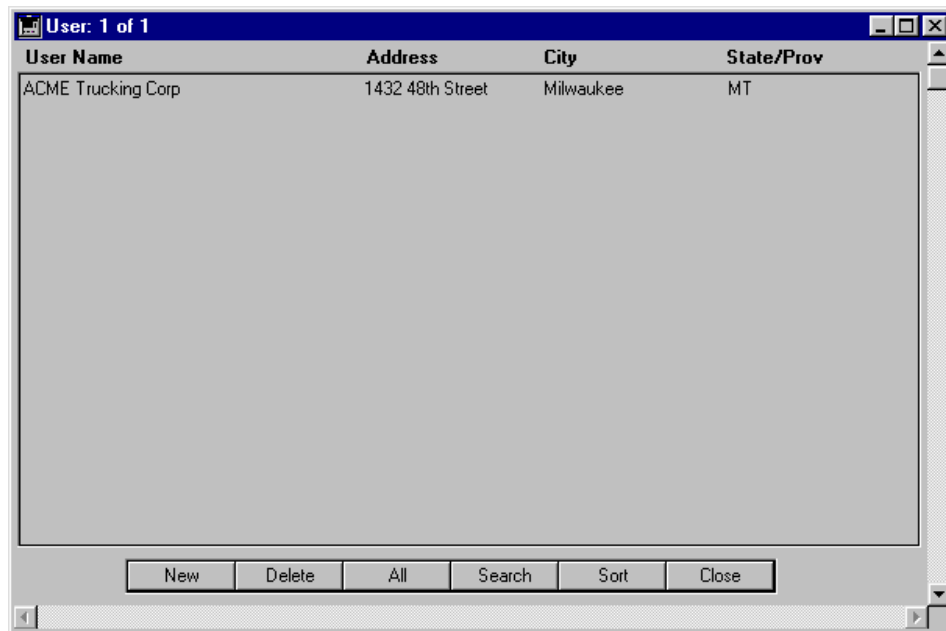
The screenshot shows a window titled "Asset: 1 of 3". Inside the window, there are two input fields. The first is labeled "Asset Name" and contains the text "Maint". The second is labeled "Description" and contains the text "Facility Maintenance". Below the input fields, there is a row of four small icons: a magnifying glass, a list icon, a left arrow, and a right arrow. To the right of these icons are three buttons labeled "Delete", "Cancel", and "Save".

## User

The User table is used to link Users (Individuals or Organizations) to a specific MSDS Product.

User records allow for streamlined updates for users of a specific MSDS Product.

## User Output Form



The screenshot shows a window titled "User: 1 of 1". Inside the window is a table with the following data:

| User Name          | Address          | City      | State/Prov |
|--------------------|------------------|-----------|------------|
| ACME Trucking Corp | 1432 48th Street | Milwaukee | MT         |

Below the table is a row of buttons: New, Delete, All, Search, Sort, and Close.

## User Data Entry Form - User Information Tab

The **User Information tab** displays information that is entered only once for a specific User record.

User: 1 of 1

User Information | Linked Products

User Name  
ACME Trucking Corp

Address  
1432 48th Street

City  
Milwaukee

State/Prov  
MT

Postal Code  
41231

Country

Phone Number  
(143) 128-4354

Fax Number  
(143) 128-4355

Contact Name  
Harold Peterson

EMail Address  
hpeterson@acmetruck.com

MSDS URL

MSDS E-Mail Address  
msds@acmetruck.com

Website URL  
www.acmetruck.com

Launch Launch

Delete Cancel Save

## User Data Entry Form - Linked Products Tab

The **Linked Products tab** allows viewing, addition, or removal of specific MSDS Products for a User:

User: 1 of 1

User Information | Linked Products

ACME Trucking Corp

| Current Version | Current Revision Date | Product Name                    | Manufacturer Name                 |
|-----------------|-----------------------|---------------------------------|-----------------------------------|
| 1               | 08/14/1993            | Chevron Machine Oil R&O ISO 150 | Chevron USA Products Company      |
| 1               | 06/07/1996            | Phosgene                        | DGC Gases                         |
| 1               | 12/10/1996            | 00321 AVIATION GASOLINE 100 LL  | Texaco Refining & Marketing, Inc. |

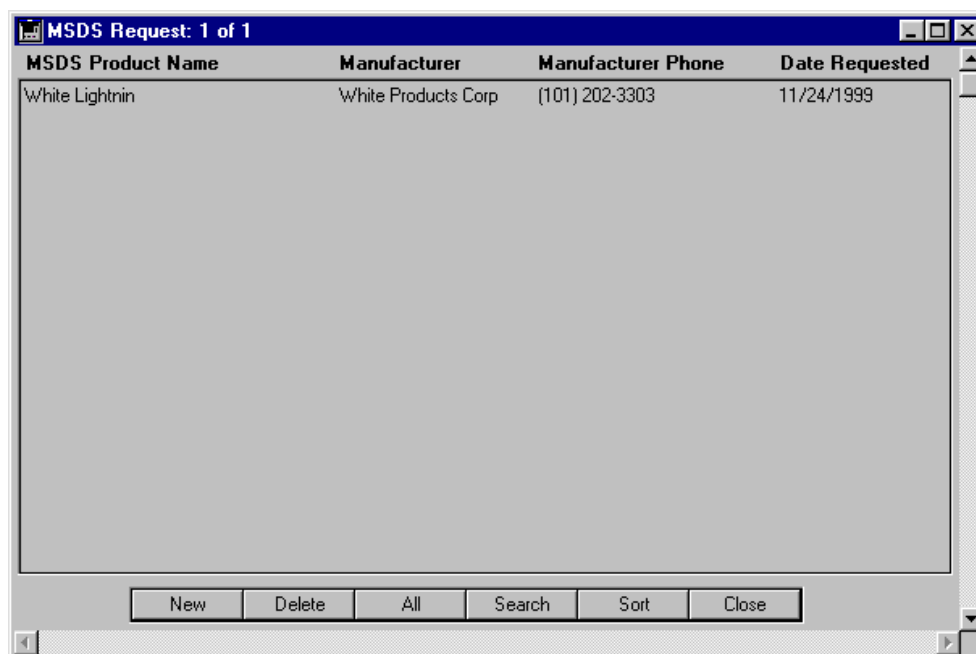
Add Remove

Cancel Save

## MSDS Request

MSDS Requests are automatically provided from the web interfaces built into MSDSpro Enterprise and MSDSpro PlusWeb, allowing any user of the system to request an MSDS, by and providing basic information about the required document.

### MSDS Request Output Form



| MSDS Product Name | Manufacturer        | Manufacturer Phone | Date Requested |
|-------------------|---------------------|--------------------|----------------|
| White Lightrnin   | White Products Corp | (101) 202-3303     | 11/24/1999     |

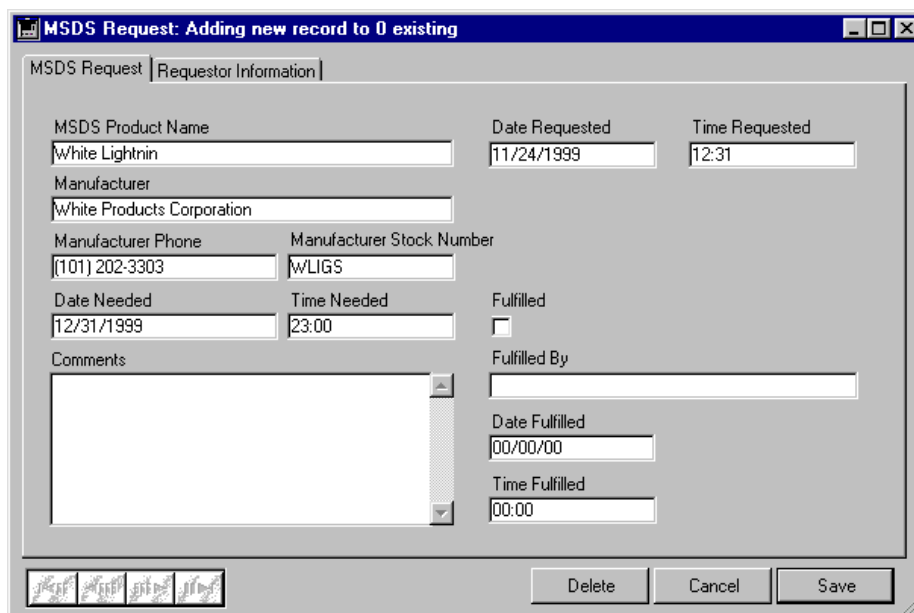
New Delete All Search Sort Close

Upon opening the MSDS Requests *Output form* (as shown above), only unfulfilled MSDS Requests are shown. To view all records (including fulfilled MSDS Requests), click **ALL**.

Double-click an entry to view the MSDS Request detail information in the MSDS Request *Data Entry form* and make any modifications to the record.

## MSDS Request Data Entry Form - MSDS Request Tab

The **MSDS Request tab** displays information about the MSDS request.



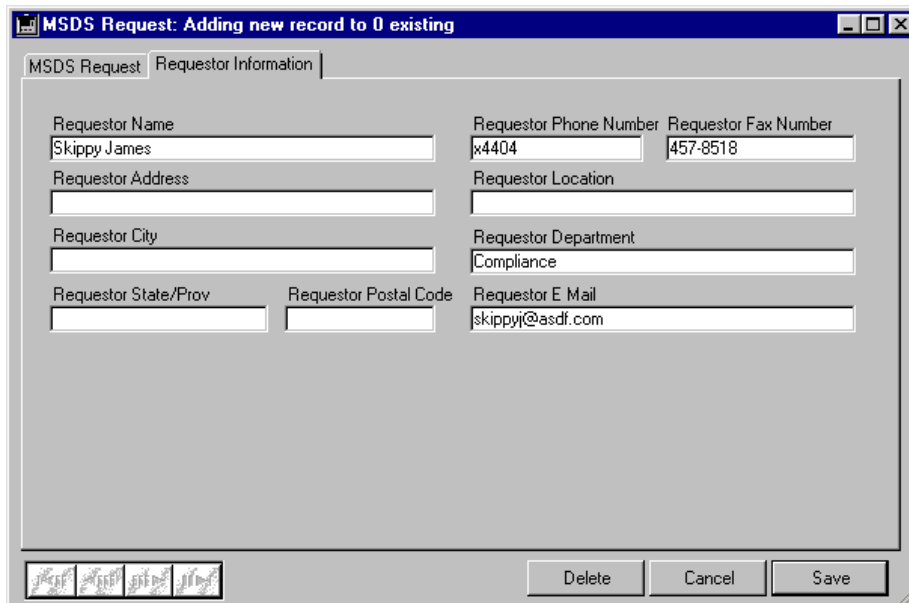
The screenshot shows a Windows-style dialog box titled "MSDS Request: Adding new record to 0 existing". It has two tabs: "MSDS Request" (selected) and "Requestor Information". The form contains the following fields:

| MSDS Product Name          |             | Date Requested            | Time Requested |
|----------------------------|-------------|---------------------------|----------------|
| White Lightnin             |             | 11/24/1999                | 12:31          |
| Manufacturer               |             |                           |                |
| White Products Corporation |             |                           |                |
| Manufacturer Phone         |             | Manufacturer Stock Number |                |
| (101) 202-3303             |             | wLIGS                     |                |
| Date Needed                | Time Needed | Fulfilled                 |                |
| 12/31/1999                 | 23:00       | <input type="checkbox"/>  |                |
| Comments                   |             | Fulfilled By              |                |
|                            |             |                           |                |
|                            |             | Date Fulfilled            |                |
|                            |             | 00/00/00                  |                |
|                            |             | Time Fulfilled            |                |
|                            |             | 00:00                     |                |

At the bottom, there are navigation buttons (Back, Forward, etc.) and three main action buttons: Delete, Cancel, and Save.

## MSDS Request Data Entry Form - Requestor Information Tab

The **Requestor Information tab** displays information about the MSDS requestor.



The screenshot shows the same dialog box as above, but with the "Requestor Information" tab selected. The form contains the following fields:

| Requestor Name       |                       | Requestor Phone Number | Requestor Fax Number |
|----------------------|-----------------------|------------------------|----------------------|
| Skippy James         |                       | x4404                  | 457-8518             |
| Requestor Address    |                       | Requestor Location     |                      |
|                      |                       |                        |                      |
| Requestor City       |                       | Requestor Department   |                      |
|                      |                       | Compliance             |                      |
| Requestor State/Prov | Requestor Postal Code | Requestor E Mail       |                      |
|                      |                       | skippyj@asdf.com       |                      |

At the bottom, there are navigation buttons (Back, Forward, etc.) and three main action buttons: Delete, Cancel, and Save.



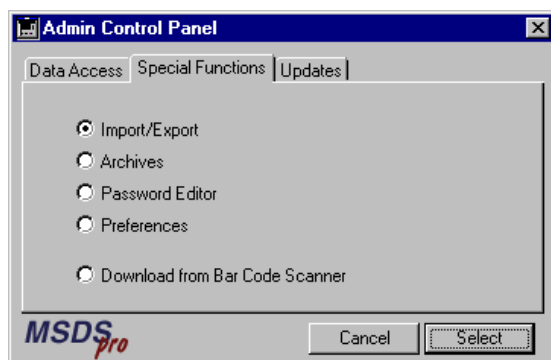
# Special Functions

*Special Functions* consist of:

- **Import/Export**
- **Archives**
- **Password Editor**
- **Preferences**

## Admin Control Panel

*Special Functions* are accessed from the *Admin Control Panel*.



## Import/Export

To Import data into or Export data out of any table in the database:

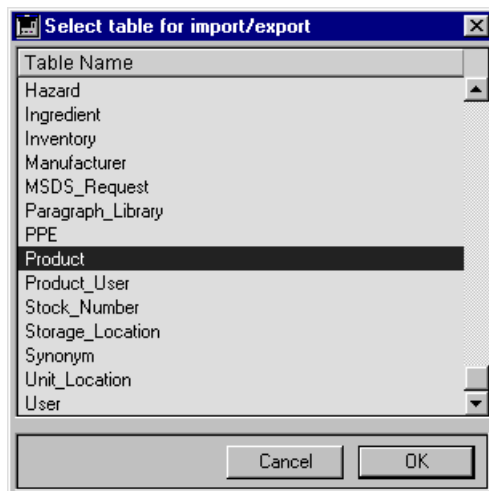
1. **Select *Import/Export* from the *Administration Control Panel***

A scrolling list of tables is presented in alphabetical order.

2. **Select the table to import data into, or to export data out of**

3. **Click OK**

All records will be listed for the table selected in the associated *Output form*.



4. **Select *Import Data* or *Export Data* from the *Selection menu* (see *Importing Data* and *Exporting Data* in *Database Conventions and Operations*)**

Perform any necessary searches or sorts prior to starting an export.

# Archives

The database archive is available to browse Products, MSDS Document, and associated information that has been archived at some point in the past. Any Product may be archived. The MSDS document, Synonyms, Inventory, Ingredients, and other related information are also archived automatically.

The archival of MSDS data (not the simple deletion of unused MSDS records) is important to determine the contents of the database at any time during the past. This makes it simple to satisfy regulations that require the availability of previous information, whether or not the data is currently active in the database.

Another reason to archive unused data is to improve the performance of the database system. The data records are physically moved into an alternate set of data tables located internally in the datafile, which increases the performance of searches and sorts on the active data tables, and increases the security of the data which has been archived.

The interface for the Archive is identical to the interface for the Product *Output* and *Data Entry forms*, however it is not possible to modify any data or to import into the Archive tables.

## Archiving Products

To archive active Products:

- 1. Open the Products *Output form*
- 2. Select Product records
- 3. Choose *Archive Selected Products* from the *Selection menu*
- 4. Confirm the archive date and click OK to continue

| Selection                 |        |
|---------------------------|--------|
| Show All                  | Ctrl+G |
| Show Subset               | Ctrl+H |
| Quit Subset               | Ctrl+J |
| Add Records               | Ctrl+N |
| Delete Records            | Ctrl+K |
| Copy Records              |        |
| Search Editor...          | Ctrl+S |
| Sort Editor...            | Ctrl+T |
| Apply Formula...          |        |
| Import Product Package    |        |
| Export Product Package    |        |
| Archive Selected Products |        |
| Close                     |        |
| View Archived Documents   |        |

## Activating Archived Products

To activate archived Products:

- 1. Open the Archive *Output form*
- 2. Select (highlight) Product records
- 3. Choose *Activate Selected Products* from the *Selection menu*

The selected Products will be available once again in the active Product *Output form*.

| Selection                  | Help   |
|----------------------------|--------|
| Show All                   | Ctrl+G |
| Show Subset                | Ctrl+H |
| Quit Subset                | Ctrl+J |
| Add Records                | Ctrl+N |
| Delete Records             | Ctrl+K |
| Copy Records               |        |
| Search Editor...           | Ctrl+S |
| Sort Editor...             | Ctrl+T |
| Apply Formula...           |        |
| Import Product Package     |        |
| Export Product Package     |        |
| Activate Selected Products |        |
| Close                      |        |

## Password Editor

User Profiles, Passwords, and System Policies are edited from the *Password editor*.

## Users & Groups

Multiple User Roles are available, allowing different workgroups to access the system with different privileges.

The ability to add, modify, and delete data depends on the authorization granted to the User Role:

| <u>User Role</u>                           | <u>Access Group</u> | <u>Privilege</u>  |
|--|---------------------|---|
| <b><i>Database Owner (DBO)</i></b>         | Database Owner      | Password Editor Only (DBO is optional)  |
| <b><i>Database Administrator (DBA)</i></b> | DB Admin            | View Records<br>Add Records<br>Edit Records<br>Delete Records<br>Import/Export from all tables<br>Archives<br>Password Editor (If DBO not engaged)<br>System Preferences<br>All Update Options<br>Reports |
| <b><i>EHS</i></b>                          | Edit                | View Records<br>Add Records<br>Edit Records<br>Delete Records<br>Import/Export from all tables<br>Archives<br>All Update Options<br>Reports   |
| <b><i>Supervisor</i></b>                   | Browse              | View Records<br>Basic Reports & Labels  |
| <b><i>Viewer/User &amp; Web User</i></b>   | -                   | Read-only MSDS viewing interface  |

## Password Editor - User Profiles Tab

The **User Profiles tab** allows access for editing system-required User Names, in addition to the creation and deletion of organization-specific User Names and profiles.

The default installation of MSDSpro contains specific User Names and Groups that contain those User Names. Each User belongs to one Group. Each Group can have many Users.

Standard password modification features and profile settings are supported.

To modify a User Profile:

1. **Select the User Name in the scrolling list**
2. **Edit the User Name, assigned Group, Password, and usage date settings**
3. **Click the SAVE button to save changes or the CANCEL button to discard changes**

Modification of these settings apply immediately after choosing to **SAVE** the modifications.

The screenshot shows the 'Password Editor' dialog box with the 'User Profiles' tab selected. On the left, a list of user names includes 'DBA', 'EHS' (which is highlighted), and 'Supervisor'. To the right of this list are input fields for 'User Name' (containing 'EHS'), 'Group' (a dropdown menu showing 'Edit'), 'Password' (containing three asterisks), and 'Confirm Password' (empty). Further right are date fields for 'Account Use Start Date' (03/26/2001), 'Account Expires Date' (00/00/00), 'Password Use Start Date' (03/26/2001), and 'Password Expires Date' (00/00/00). At the bottom left of the form area are two checkboxes: 'User Must Change Password at Next Logon' and 'Account Disabled', both of which are unchecked. At the bottom right are four buttons: 'New', 'Delete', 'Cancel', and 'Save'. A 'Done' button is located at the very bottom center of the dialog box.

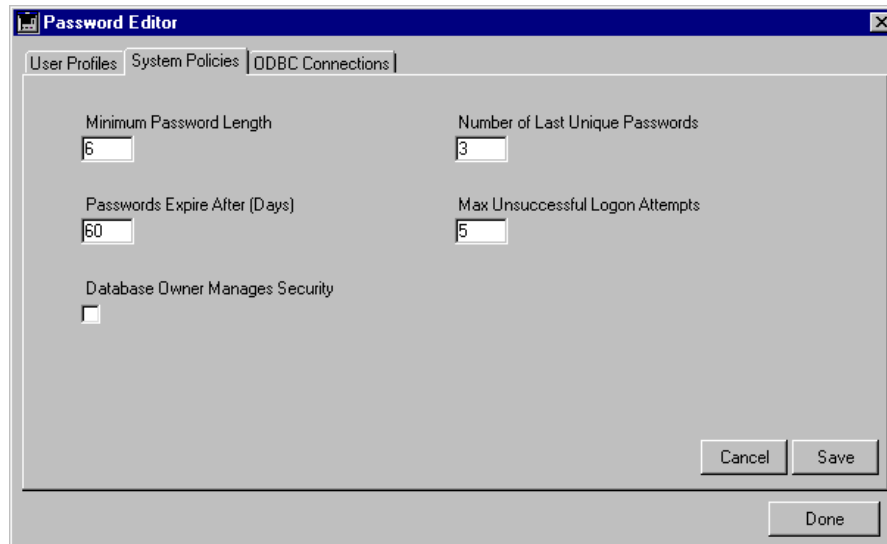
## Password Editor - System Policies Tab

The **System Policies tab** allows global password behaviors to be implemented.

By selecting **Database Owner Manages Security**, a special User Name will be created called "Database Owner". This will be the only User Name which will have access to the *Password editor* after being created. By default, the Database Owner password is "dbo" and must be changed the first time the Database Owner successfully logs on. Once created, only the Database Owner will have privileges to access the *Password editor*.

To remove the Database Owner after being created, the Database Owner must successfully login to the system and deselect **Database Owner Manages Security**.

Modification of these settings apply immediately after choosing to **SAVE** the modifications.



The screenshot shows the "Password Editor" dialog box with the "System Policies" tab selected. The dialog has three tabs: "User Profiles", "System Policies", and "ODBC Connections". The "System Policies" tab contains the following settings:

| Setting                         | Value                    |
|---------------------------------|--------------------------|
| Minimum Password Length         | 6                        |
| Number of Last Unique Passwords | 3                        |
| Passwords Expire After (Days)   | 60                       |
| Max Unsuccessful Logon Attempts | 5                        |
| Database Owner Manages Security | <input type="checkbox"/> |

At the bottom right of the dialog are three buttons: "Cancel", "Save", and "Done".

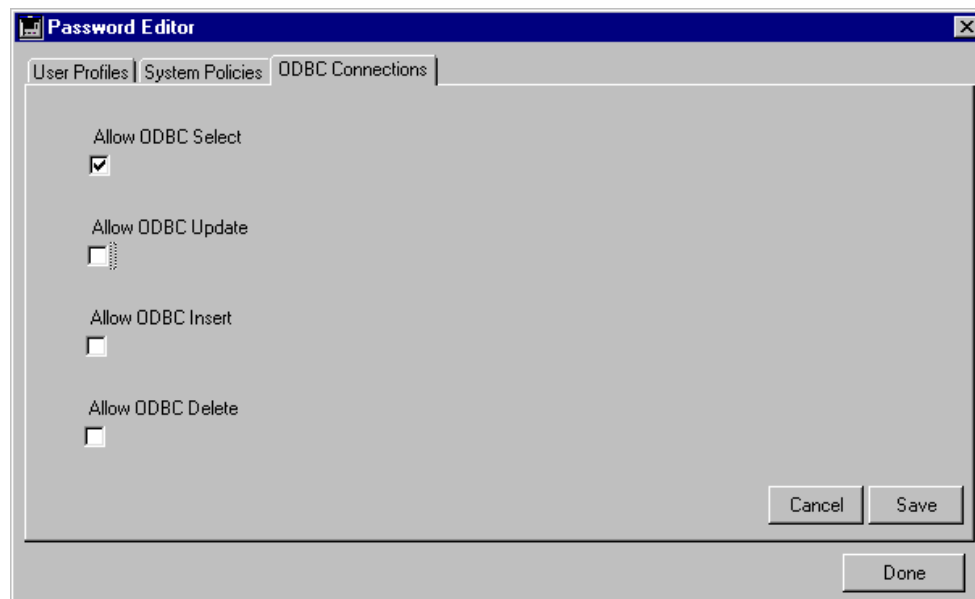
## Password Editor - ODBC Connections Tab

The **ODBC Connections tab** allows specific privileges to be assigned to incoming ODBC connections from other application systems. ODBC is the Open DataBase Connectivity standard that allows databases of various design and technology to share data.

ODBC is available with MSDSpro Enterprise Server. Contact your MSDSpro representative for more information on how to enable ODBC data access from your MSDSpro database system.

- **Allow ODBC Select:** Allows an ODBC connection to view records.
- **Allow ODBC Update:** Allows an ODBC connection to edit records.
- **Allow ODBC Insert:** Allows an ODBC connection to add records.
- **Allow ODBC Delete:** Allows an ODBC connection to delete records.

Modification of these settings apply immediately after choosing to **SAVE** the modifications.



## Preferences

Preferences are available to the DBA system role to modify certain behaviours and selections. Any modification to preferences will immediately effect other MSDSpro users.

### Preferences - Company Information Tab

The screenshot shows the 'Administrative Preferences' dialog box with the 'Company Information' tab selected. The dialog has several input fields for company details, contact information, and a logo. The fields are as follows:

- Company Name:** Snowflower, Inc.
- Address:** 123 Main Street
- City:** Oklahoma City
- State or Province:** OK
- Postal Code:** 77856
- Contact Name:** Sam Smith
- Phone:** (907) 555-1212
- Contact E-Mail Address:** samsmith@snowflowerinc.com
- Document Preparer:** OT Jones
- Preparer Phone:** (907) 555-1212
- Company Federal Identification Number:** 91-0123456

On the right side, there is a 'Company Logo' section with a preview of a logo for 'Snowflower, Inc.' and two buttons: 'Load Logo...' and 'Clear Logo'. At the bottom right, there are 'Cancel' and 'Save' buttons.

- **Company Information** fields are used on various reports generated by the system.
- **Contact Name** and **E-Mail address** are used when sending an Manufacturer Update Request E-Mail.
- **Company Logo** is the graphic image used on some reports that are generated by MSDSpro. Click **CLEAR LOGO** to clear the graphic image.

To load and use the **Company Logo**:

1. **Paste any bitmap image from the clipboard into this area, or**
2. **Click LOAD LOGO... to select an image file from hard disk**

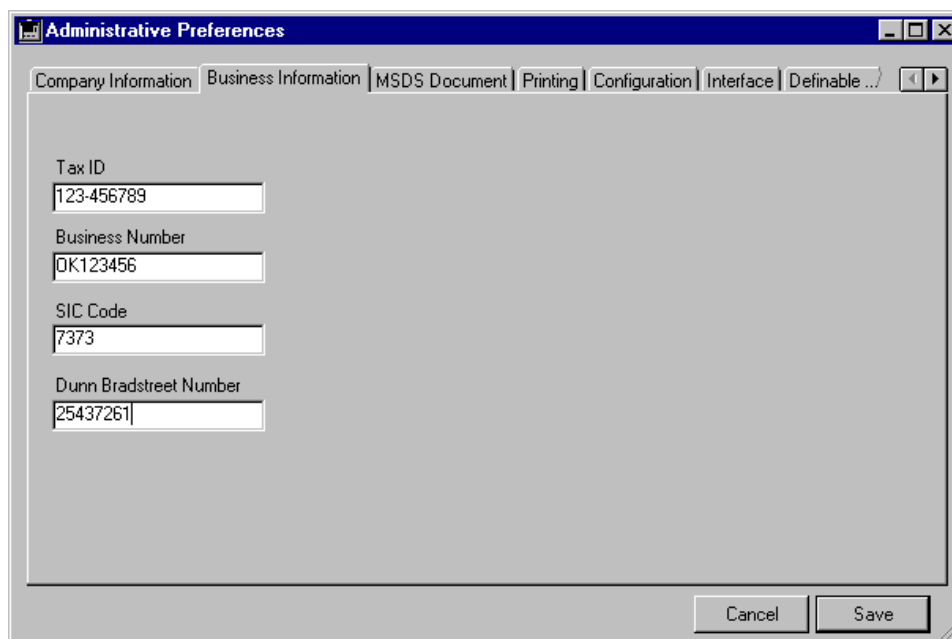
**NOTE:**

*The **Company Logo** is also used by MSDSpro Enterprise and PlusWeb web browser interfaces if the Web Server Control Panel does not specify an existing alternate graphic image.*



## Preferences - Business Information Tab

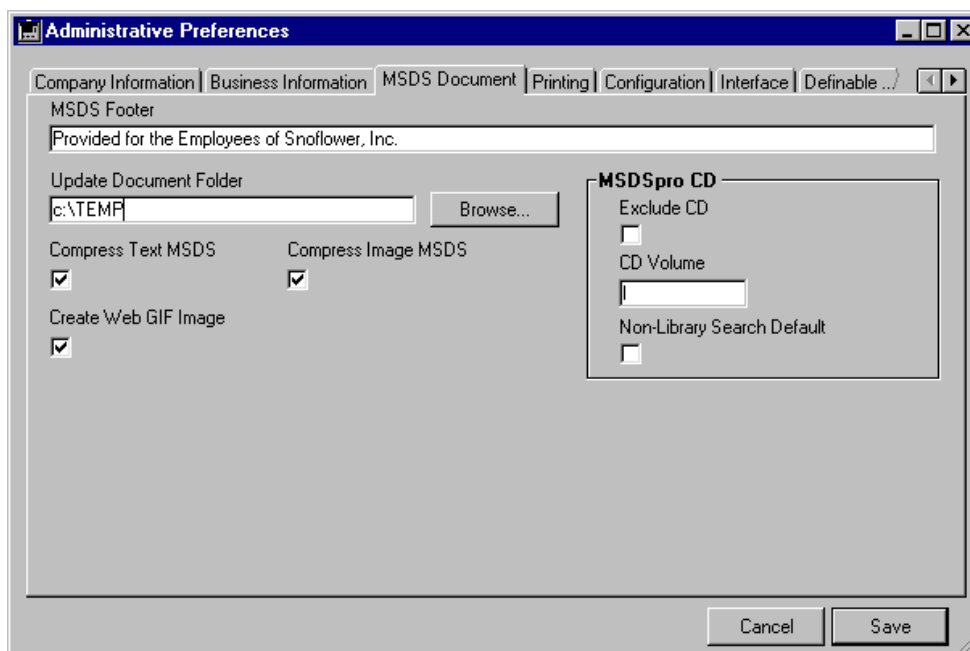
Business Information fields are used by various reports generated by MSDSpro.



The image shows a screenshot of the 'Administrative Preferences' dialog box, specifically the 'Business Information' tab. The dialog box has a title bar with the text 'Administrative Preferences' and standard window controls. Below the title bar is a tabbed interface with the following tabs: 'Company Information', 'Business Information' (which is the active tab), 'MSDS Document', 'Printing', 'Configuration', 'Interface', and 'Definable ...'. The 'Business Information' tab contains four text input fields, each with a label to its left: 'Tax ID' with the value '123-456789', 'Business Number' with the value 'OK123456', 'SIC Code' with the value '7373', and 'Dunn Bradstreet Number' with the value '25437261'. At the bottom right of the dialog box are two buttons: 'Cancel' and 'Save'.

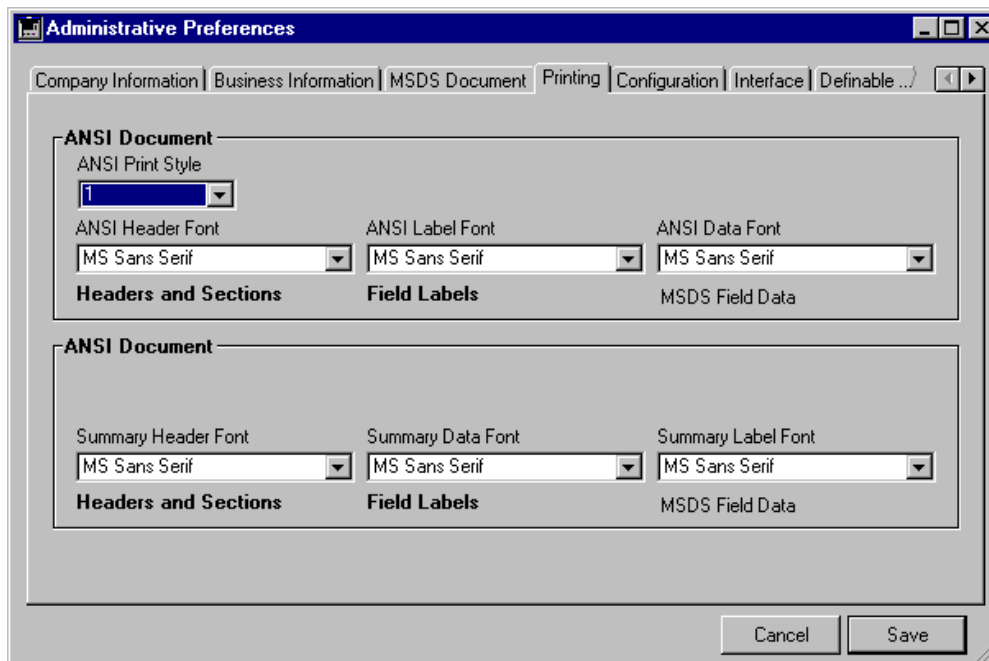
| Field                  | Value      |
|------------------------|------------|
| Tax ID                 | 123-456789 |
| Business Number        | OK123456   |
| SIC Code               | 7373       |
| Dunn Bradstreet Number | 25437261   |

## Preferences - MSDS Document Tab



- **MSDS Footer:** A single line of text that will be printed in the footer of each MSDS document page (ANSI or Text MSDS documents only.)
- **Update Document Folder:** The location of the folder on the local hard disk in which the system expects to find the import disk files containing MSDS documents, used by *Update MSDS From Hard Disk*, located in the *Updates* area.
- **Compress Text MSDS:** Turns ON or OFF the internal compression Text MSDS documents. Default is ON.
- **Compress Image MSDS:** Turns ON or OFF the internal compression of Image MSDS documents. Default is ON.
- **Create Web GIF Image:** Turns ON or OFF the internal creation of GIF images for display of Image MSDS documents for Web users. Default is ON.
- **Exclude CD:** Turns ON or OFF use of the MSDSpro CD. Default is OFF.
- **CD Volume:** The letter of the drive containing the MSDSpro CD.
- **Non-Library Search Default:** Turns ON or OFF library searches as search default. Default is OFF.

## Preferences - Printing Tab



- **ANSI Print Style:** Determines which printing template to use when printing ANSI MSDS documents. Default is 1.
- **ANSI Fonts:** Determines which fonts to use on the 3 ANSI document template areas.
- **Summary Fonts:** Determines which fonts to use on the 3 Summary template areas.

## Preferences - Configuration Tab

The screenshot shows the 'Administrative Preferences' dialog box with the 'Configuration' tab selected. The dialog has several sections for configuring system settings:

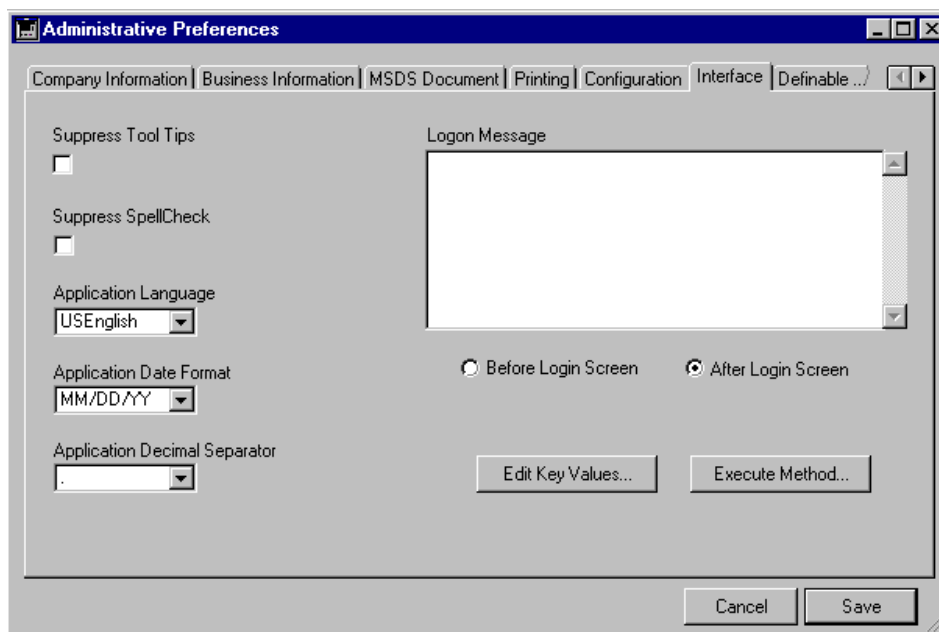
- Top Section:** Contains four input fields: 'Auto Log Off Time (Minutes)' with a value of 15, 'Max Search Results' with a dropdown set to 1000, 'MSDS ID Prefix' with a text field containing 'MSDS', and 'Number of MSDS ID Places' with a dropdown set to 5.
- Inventory Synchronization:** A section with a checkbox 'Enable Synchronization' (unchecked), a 'Synchronization Time' field set to '00:00', and a 'Synchronization File' field with a 'Browse...' button.
- Year Entry:** A section with a checkbox '4 Digit Year Entry' (unchecked), a 'Pivot Year' field set to '50'.
- Application Log File:** A section with a 'Max Log File Days' field set to '0' and a 'No Edit Log' checkbox (unchecked).
- SARA Reporting:** A section with a checkbox 'Disable SARA Reports' (unchecked) and four 'Pounds' input fields for 'SARA Hazardous Report Quantity', 'SARA EHS Report Quantity', 'SARA Manufactured/Processed', and 'SARA Purchased', all set to '0.0'.
- Buttons:** At the bottom are 'Reset Registration', 'Cancel', and 'Save' buttons.

- **Auto Logoff Time:** Specifies the length in minutes that the system will wait before logging off an inactive user. Default is 15.
- **Max Search Results:** The default number of records to return when performing searches. Default is 1000.
- **MSDS ID Prefix:** The alphanumeric beginning to each MSDS ID.
- **Number of MSDS ID Places:** The number of places to use when automatically numbering MSDS ID values for new Product records.
- **Inventory Synchronization:** Specific fields for an integrated Inventory synchronization routine.
- **4 Digit Year Entry:** Turns ON or OFF the forced 4 digit entry of years. When OFF, a pivot year is used (see next item, **Pivot Year**). When ON, the user must enter all 4 digits of the year during date entry. Default is OFF.
- **Pivot Year:** Specifies which year to use as a pivot during date entry. If the year entered is equal to the pivot year or higher, the current century (1900) will be used. If the year entered is less than the pivot year, the next century will be used (2000). Default is 50.
- **Max Log File Days:** The number of days in which to keep log files of system activity.

## Preferences - Configuration Tab (Cont'd)

- **No Edit Log:** Turns ON or OFF the internal edit log system. When turned OFF, MSDSpro will create a log record for each modification to any record within the system. When turned ON, no edit log records will be created, and the **EDIT LOG** buttons are hidden on all screens. Default is OFF.
- **Disable SARA Reports:** Disables the SARA Reporting functions within MSDSpro.
- **RESET REGISTRATION:** Reset the registration information originally entered for MSDSpro. Contact MSDSpro for the reset password and your organization's new registration information if this is required.

## Preferences - Interface Tab



- **Suppress Tool Tips:** Turns ON or OFF tool tips present on screens. Default is OFF.
- **Suppress SpellCheck:** Turns ON or OFF SpellChecking throughout data entry screens within MSDSpro. Default is OFF.
- **Application Language:** Determines interface language translation. Default is ENGLISH.
- **Application Date Format:** Determines default date display format. Default is "MM/DD/YY".

## Preferences - Interface Tab (Cont'd)

- **Application Decimal Separator:** Determines the default decimal separator. Default is “.”
- **Logon Message:** Allows a generic message to be displayed when a user successfully logs into MSDSpro. The user must click the **OK** button to continue after reading the Logon Message.
- **Before/After Login Screen:** Determines whether the Logon Message is displayed before or after the user has successfully logged onto MSDSpro. Default is BEFORE.

## Preferences - Definable Fields Tab

MSDSpro provides 10 extra, customizable, fields for your optional use based on your specific needs. These Definable fields are stored in the Product table.

The Definable fields consist of:

- **(2) Boolean fields (Yes/No, True/False)**
- **(4) Number fields (Real number, with decimal precision to 15 places)**
- **(4) Alpha (Alphanumeric up to 80 characters)**

The screenshot shows the 'Administrative Preferences' dialog box with the 'Definable Fields' tab selected. The dialog has a title bar and several tabs: Business Information, MSDS Document, Printing, Configuration, Interface, Definable Fields, and TCP/IP & E-Mail. The 'Definable Fields' tab contains a table with three columns: 'Product Field', 'Name \*', and 'Indexed for Searching'. There are 10 rows of definable fields. The first two are Boolean fields, and the remaining eight are Alpha fields. The 'Name' column contains text input fields, some of which are pre-filled with values like 'Bob's no updates', 'Alert', 'Amount 1/1/99', 'EHS Approved', 'Ops Approved', and 'Mgmt Approved'. The 'Indexed for Searching' column contains checkboxes. At the bottom of the dialog, there is a note: '\* Named definable fields will appear on the Product Entry Form', and two buttons: 'Cancel' and 'Save'.

| Product Field       | Name *           | Indexed for Searching    |
|---------------------|------------------|--------------------------|
| Definable Boolean 1 | Bob's no updates | <input type="checkbox"/> |
| Definable Boolean 2 | Alert            | <input type="checkbox"/> |
| Definable Number 1  | Amount 1/1/99    | <input type="checkbox"/> |
| Definable Number 2  |                  | <input type="checkbox"/> |
| Definable Number 3  |                  | <input type="checkbox"/> |
| Definable Number 4  |                  | <input type="checkbox"/> |
| Definable Alpha 1   | EHS Approved     | <input type="checkbox"/> |
| Definable Alpha 2   | Ops Approved     | <input type="checkbox"/> |
| Definable Alpha 3   | Mgmt Approved    | <input type="checkbox"/> |
| Definable Alpha 4   |                  | <input type="checkbox"/> |

\* Named definable fields will appear on the Product Entry Form

Cancel Save

## Preferences - Definable Fields Tab (Cont'd)

- Definable fields are physically located in the Product table and appear on the Product *Data Entry form* **Specific tab**.

The Definable field names must be customized before the fields will appear on the Product *Data Entry form*. Simply type the name the field should appear with, and it will be reflected in the Product *Data Entry form*, *Query editor*, *Sort editor*, and *Quick Report editor*.

Any of the Definable fields may be indexed. This will make searches using the Definable field much faster than a normal field. *Note: An indexed field can use considerably more space on the hard drive when indexed.*

## Preferences - TCP/IP & E-Mail Tab

MSDSpro can automatically e-mail a notification when an MSDS Request is submitted by an MSDSpro user.

MSDSpro e-mail functions through use of SMTP (Simple Mail Transfer Protocol), the Internet standard e-mail protocol. Virtually any e-mail server will allow SMTP e-mail to be sent and received. After entering the appropriate **SMTP Server Address** and **SMTP Sender Address**, click **TEST E-MAIL** to allow MSDSpro to send a test e-mail and verify the connection. If the test is successful, **SMTP Verified** will be "Yes". If the test is not successful, **SMTP Verified** will remain as "No" and the e-mail system is not activated.

The screenshot shows the 'Administrative Preferences' dialog box with the 'TCP/IP & E-Mail' tab selected. The 'E-Mail Settings' section includes fields for 'SMTP Server Address' (192.160.0.1) and 'SMTP Sender Address' (msdspro@snowflowerinc.com). There is a 'Test E-Mail...' button and a 'Send MSDS Request E-Mail' checkbox which is checked. Below this is a list of 'MSDS Request Notification E-Mail Addresses' containing 'suzyq@snowflowerinc.com' and 'charliebrown@snowflowerinc.com'. The 'SMTP Verified' status is set to 'No'. The 'TCP/IP Settings' section has a 'Connect to Internet using Proxy Server' checkbox checked, with 'HTTP Proxy' set to 192.167.0.1 and 'Port' set to 80. There is also a 'Debug TCP' checkbox which is unchecked. 'Cancel' and 'Save' buttons are at the bottom right.

## Preferences - TCP/IP & E-Mail Tab (Cont'd)

- **SMTP Server Address:** The SMTP server name. Example: domino.acme.com, or 192.168.0.1.
- **SMTP Sender Address:** The SMTP address of the sender's e-mail account. Example: msdspro@snowflowerinc.com. This is the e-mail account the messages will originate from.
- **Send MSDS Request E-Mail:** Turns on the capability to send an e-mail notification when an MSDS Request has been submitted (only after the SMTP settings have been verified.)
- **MSDS Request Notification E-Mail Addresses:** The e-mail address(es) to notify when an MSDS Request is submitted (separate addresses by typing the Return key between addresses.)
- **TEST E-MAIL:** Used to test the SMTP settings, after **SMTP Server Address** and **SMTP Sender Address** have been entered. If the test is successful, **SMTP Verified** will be "Yes". If the test is not successful, **SMTP Verified** will remain as "No" and the e-mail system is not activated.

Optional settings can be configured if your organization requires the use of a Proxy Server to access the Internet:

- **Connect to Internet Using Proxy Server:** Is used when the company network requires that a Proxy Server is used to connect to the Internet (for security purposes, as a firewall).
- **HTTP Proxy:** Is the address of the Proxy Server.
- **Port:** The port which the Proxy Server will permit HTTP traffic on (usually 80).
- **TCP Debug:** Selecting this option will turn on the debug mode for TCP/IP requests. This option requires a password and should only be used to troubleshoot problems that may be occurring with the TCP/IP Internet requests. Contact MSDSpro Technical Support for assistance.

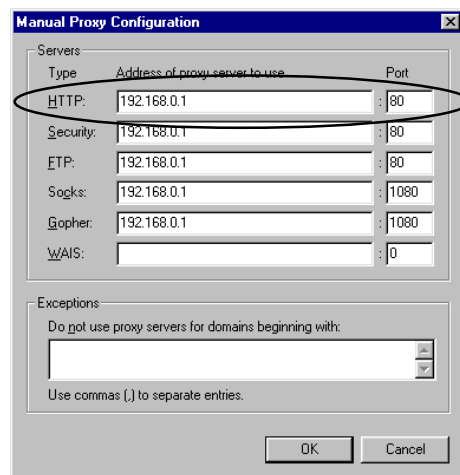
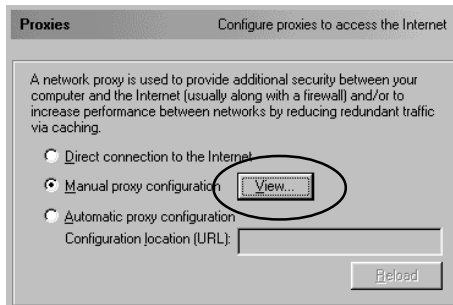
If your organization uses a Proxy Server, MSDSpro must be configured to function with it in order to use the Internet. The following are two examples of how to acquire the settings used for the Proxy Server configuration (both Netscape Navigator and Internet Explorer are used as examples.)



## Preferences - TCP/IP & E-Mail Tab (Cont'd)

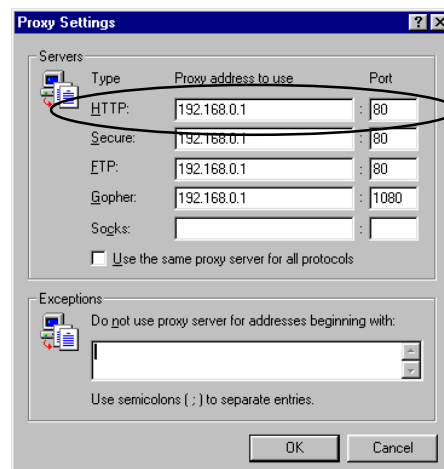
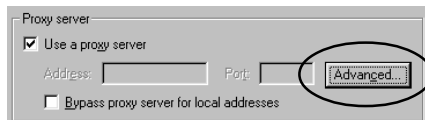
Using Netscape Navigator®:

1. Select **Preferences...** from the **Edit menu**
2. Choose to expand **Advanced**
3. Select **Proxies**
4. Click **VIEW**



Using Internet Explorer®:

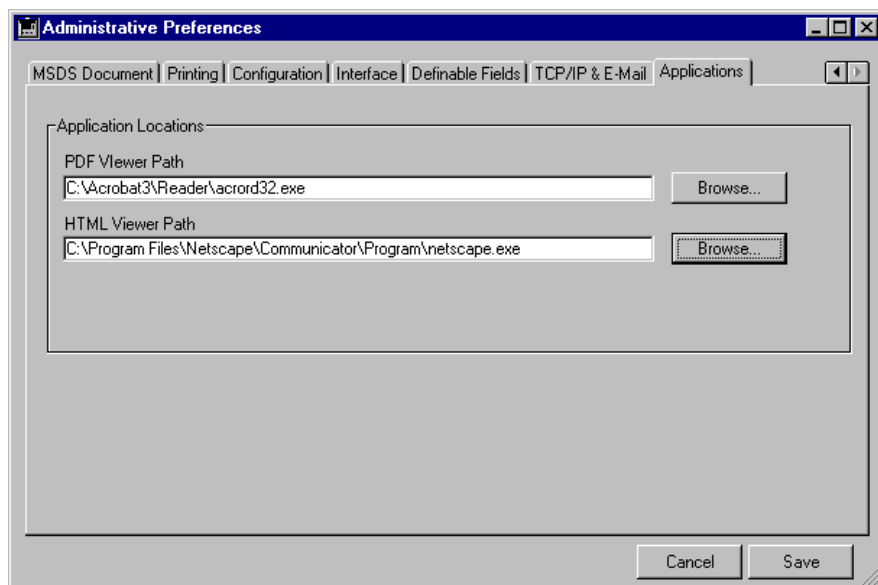
1. Select **Internet Options...** from the **Tools menu**
2. Choose the **Connections tab**
3. Click **LAN SETTINGS**
4. Click **ADVANCED**



## Preferences - Applications Tab

The **Applications tab** specifies the default location of additional “helper” applications which may be used to open and/or print external documents.

Click **BROWSE** to locate the application executable (.exe) file for each application type, if required.



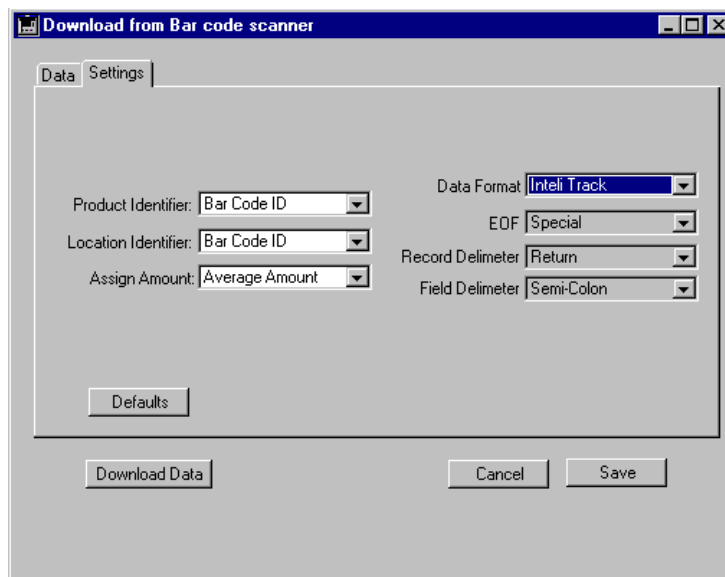
**NOTE:** *It is important to locate and specify the PDF Viewer Path and HTML Viewer Path in order to print PDF and HTML documents correctly.*

## Download from Bar Code Scanner

The *Download from Bar Code Scanner* function allows Inventory information that has been loaded into a hand-held Bar Code scanner to be downloaded into MSDSpro Inventory. The Inventory created is a “snapshot” of the current Inventory. MSDSpro assumes that the amount scanned is the total amount of the Product that is currently stored at the specified Location.

To Download Inventory information from a Bar Code Scanner:

1. Select **Download from Bar Code Scanner** from the **Admin Control Panel**
2. Click the **Settings** tab
3. Check the settings



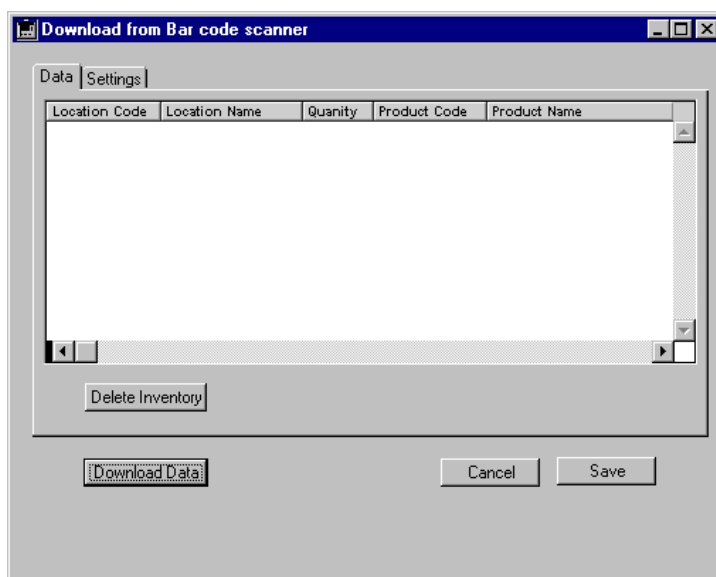
The screenshot shows a Windows-style dialog box titled "Download from Bar code scanner". It has two tabs: "Data" and "Settings", with "Settings" currently selected. The dialog contains several dropdown menus for configuration: "Product Identifier" is set to "Bar Code ID", "Location Identifier" is set to "Bar Code ID", and "Assign Amount" is set to "Average Amount". On the right side, "Data Format" is set to "Intelli Track", "EOF" is set to "Special", "Record Delimiter" is set to "Return", and "Field Delimiter" is set to "Semi-Colon". At the bottom left is a "Defaults" button, and at the bottom right are "Download Data", "Cancel", and "Save" buttons.

- **Product Identifier:** This field sets how MSDSpro will relate the Bar Code ID to the Product in MSDSpro. The choices are Bar Code ID, Stock Number, or MSDS ID.
- **Location Identifier:** This field sets how MSDSpro will relate the Location information to the specific Location in MSDSpro. The choices are Bar Code ID or Location ID.
- **Assign Amount:** The quantity set on the Bar Code scanner can be assigned to either the Average Amount Daily or the Maximum Amount Daily fields.
- **Data Format:** This setting describes how the data will be transferred from the scanner to MSDSpro. Please contact your MSDSpro Sales Consultant for status on other supported formats.

## Download from Bar Code Scanner (Cont'd)

- **Defaults:** Restores the default download settings.

4. Click the **Data** tab



5. Click the **DOWNLOAD** button to download the data

6. Verify the downloaded data for accuracy and completeness

Confirm that the correct Locations, Products and quantities have been downloaded. Incorrect items can be deleted by selecting the item and clicking the **DELETE INVENTORY** button.

7. Click the **SAVE** button to save the data

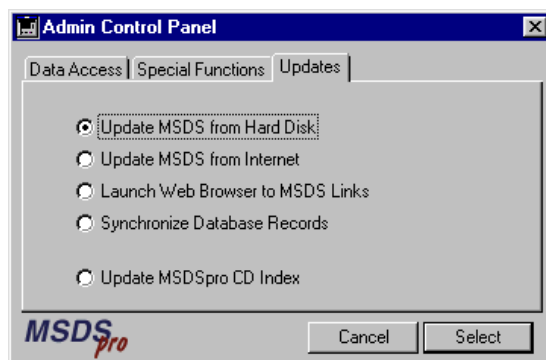
# Updates

*Updates consist of:*

- **Update MSDS from Hard Disk**
- **Update MSDS from Internet**
- **Launch Web Browser to MSDS Links**
- **Synchronize Database Records**
- **Update MSDSpro CD Index**

## Admin Control Panel

*Updates are accessed from the Admin Control Panel.*



## Update MSDS From Hard Disk

Updating the MSDS Document from Text (ASCII), Image (all supported image types), and PDF disk files can be accomplished either singularly within the Product *Data Entry form* (click **IMPORT** from the **Document tab**), or by a batch update process from the *Updates* area (recommended).

To load and update MSDS documents from individual files within a single folder on the local hard disk:

- 1. Place MSDS files to load into the update folder (the default location in Preferences)**

File names should match the MSDS ID of the Product to be updated plus the file extension, i.e. CGMVG MSDS ID will match a text file called CGMVG.txt located in the update folder. If Images are to be loaded, place them in a folder named with the MSDS ID. The image files within the folder will be loaded in alphabetical order ( 001, 002 or A, B will become pages 1-2).

- 2. Select *Update MSDS From Hard Disk* from the *Admin Control Panel Updates* area**

File names found in the update folder are compared to Product MSDS ID values. Verify that the Products listed match the files that are present in the update folder.

- 3. Verify the import date (the current date is the default)**

- 4. Verify the Archive Before Replacing setting (archival is the default)**

If **Archive Before Replacing** is selected, MSDSpro will archive existing documents if a replacement document is located and successfully loaded from the update folder. If it is not selected, it will only be overwritten by the replacement document if a replacement document is successfully loaded from the update folder. If no replacement is found, the existing document will not be replaced or archived.

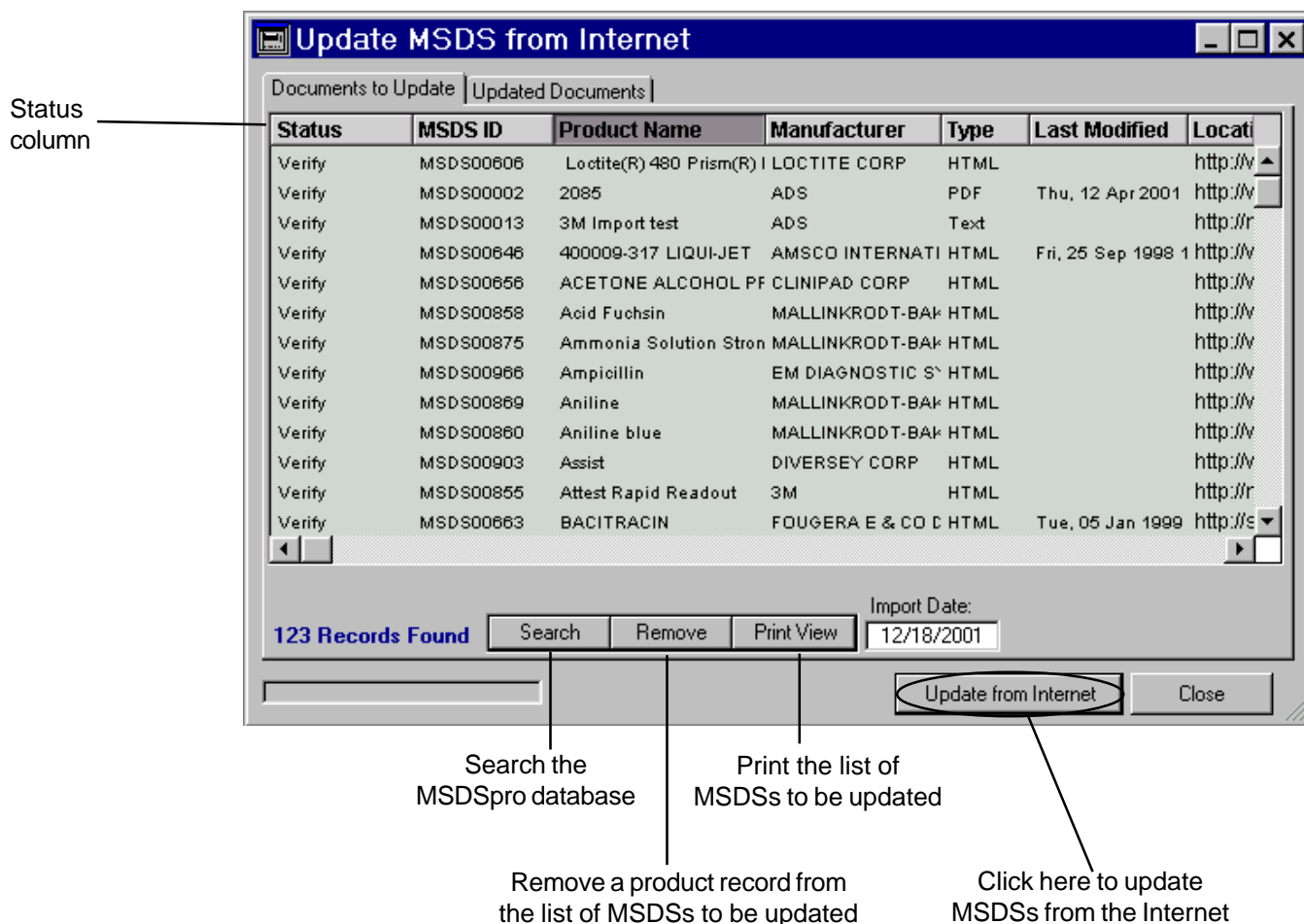
- 5. Click UPDATE FROM HARD DISK**

A thermometer will appear showing the status of the update. All files that are successfully loaded are moved into a folder named "Processed", within the update folder.

## Update MSDS From Internet

MSDS documents may be imported from the Internet into MSDSpro. MSDSpro remembers the location on the Internet from which the MSDS was imported. MSDSpro can then return to that same location on the Internet to check for an updated MSDS. An updated MSDS will be imported from the Internet only if the size of the MSDS or its last modified date has changed. By default, when an MSDS is updated, the old MSDS is archived unless the user has turned off this feature.

The *Update MSDS from Internet Output* form displays all the MSDS documents imported from the Internet, their last modified date and the URL from which they were imported. Buttons on the *Update MSDS from Internet Output* form allow the user to print the list of MSDS documents to be updated, remove MSDSs from the update list, or search the MSDSpro database.



### Update MSDS From Internet (cont'd)

To update MSDS documents from the Internet:

1. Click on the **ADMIN** button on the floating toolbar
2. Click on the *Updates* tab
3. Click **Update MSDS from Internet** and then click on the **SELECT** button

The *Update MSDS from Internet Output* form appears displaying all the MSDS documents imported from the Internet, their last modified date and the URL from which they were imported.

5. Click the **UPDATE FROM INTERNET** button to begin the update process
6. Click **OK** in the **Confirm** dialog to continue the update process

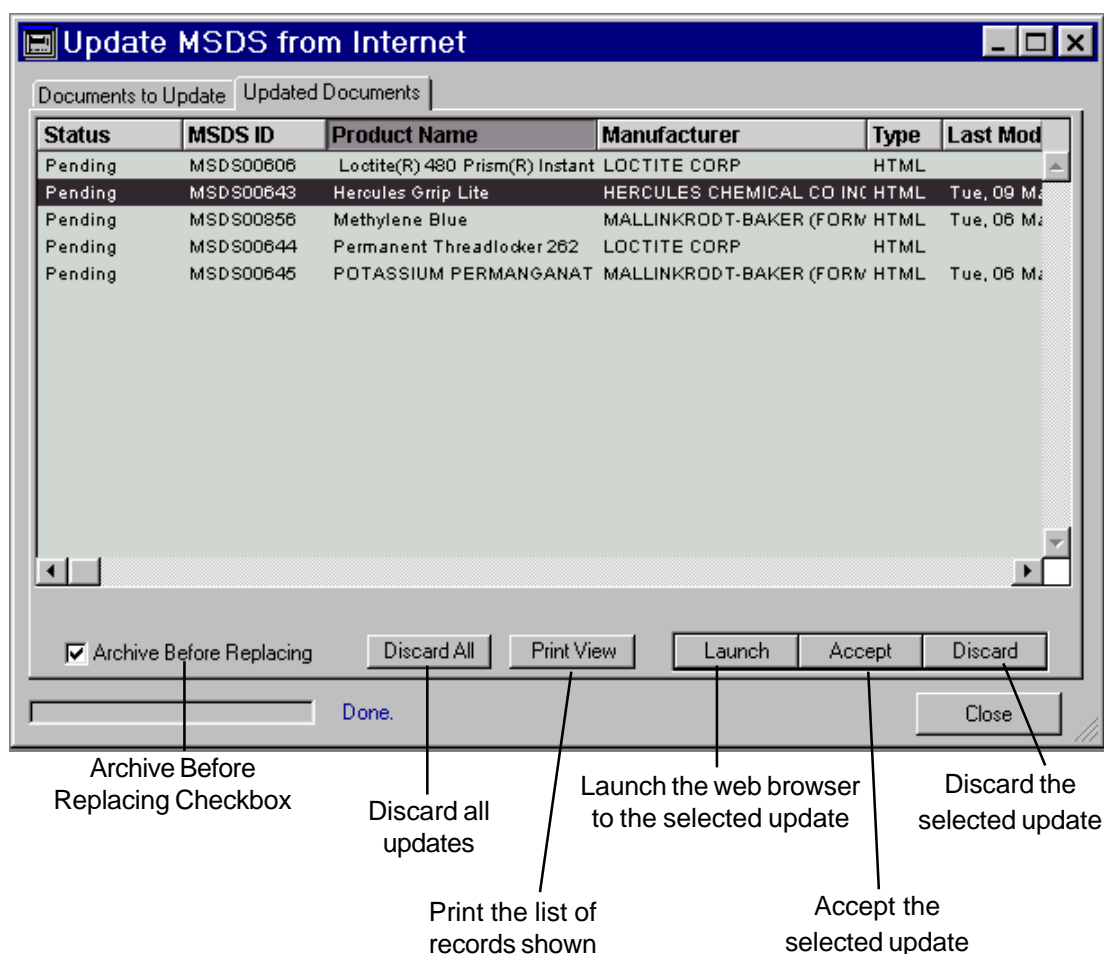
Prior to updating, the Status column displays the word "Verify". After the update process has completed, the Status column will display one of several other entries. They are:

- **Not Modified** - The MSDS has not been modified since the last time it was updated.
- **Not Found** - The MSDS no longer exists at the original URL.
- **Pending** - An updated MSDS has been imported into the system. Before the new MSDS will replace the old one the user needs to click on the **ACCEPT** button under the **Updated Documents** tab.
- **Unavailable** - The original URL is valid however the server hosting the MSDS on the Internet is not responding.



## Update MSDS From Internet (cont'd)

MSDSs for which updates have been found will be listed under the **Updated Documents** tab.



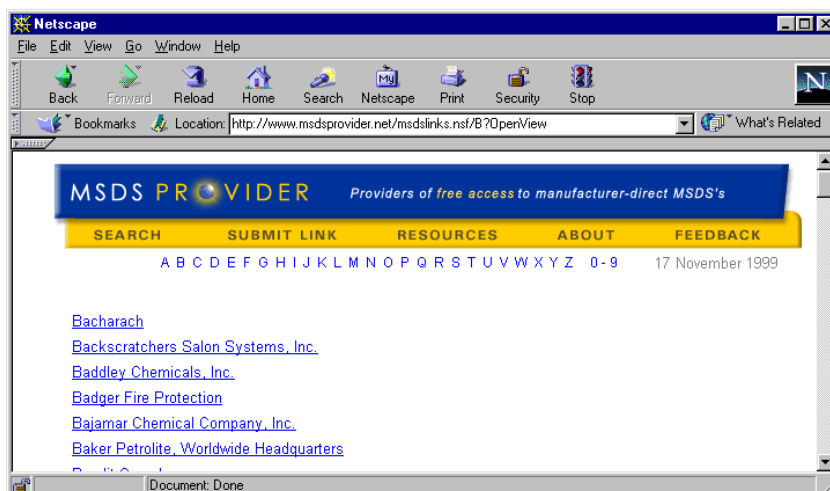
- Before the new MSDS will be attached to the Product Record, the **ACCEPT** button must be clicked.
- When an MSDS is updated, the old MSDS is archived by default. Unchecking the Archive Before Replacing checkbox will prevent the old MSDS from being archived.
- To prevent any one of the listed product records from being updated, highlight the record and click the **DISCARD** button.
- If no updates are desired, click the **DISCARD ALL** button.
- To view the URL from which the update has been imported, highlight the product record and click the **LAUNCH** button.
- Once all the MSDSs desired have been updated, click the **CLOSE** button to complete the process.

## Launch Web Browser to MSDS Links

Selecting *Launch Web Browser to MSDS Links* from the *Admin Control Panel* will launch the default web browser to a comprehensive Internet resource ([www.MSDSprovider.net](http://www.MSDSprovider.net)) which provides free links to Manufacturer MSDS information.

To Launch your Web Browser to MSDS Links:

1. **Select *Launch Web Browser to MSDS Links* from *Admin Control Panel Updates* area**

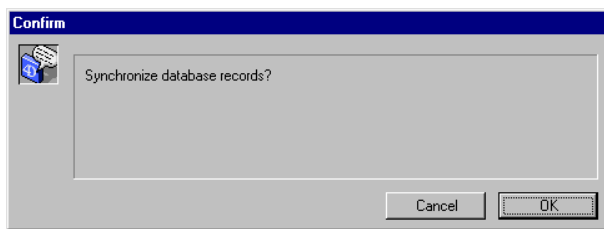


## Synchronize Database Records

Occasionally it may be desirable to re-synchronize database records after a large number of database record deletions have occurred.

To Synchronize Database Records:

1. **Select *Synchronize Database Records* from the *Admin Control Panel Updates* area**
2. **Click OK**



3. **When the process is complete, a notification will be presented**

## Update MSDSpro CD Index

Updating the MSDSpro CD Index occurs automatically when inserting the new MSDSpro CD for the first time. However, it may be required to manually initiate the process after database rebuild. To manually initiate the update, select *Update MSDSpro CD Index* in the *Admin Control Panel*. A window will be presented to select options for the update.

*Warning: The Update MSDSpro CD Index process can take a significant amount of time, and cannot be interrupted.*

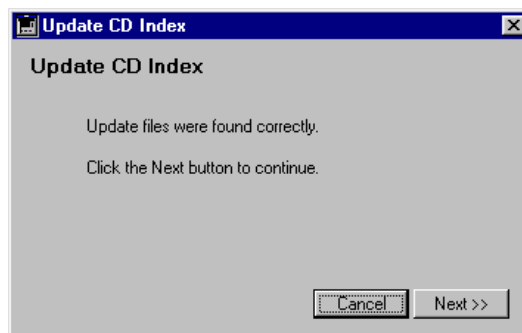
To update the MSDSpro CD Index:

1. **Select *Update MSDSpro CD Index* from the *Admin Control Panel Updates* area**
2. **If all update files are correctly found, the **NEXT >>** button will be available**

If all update files are not correctly found, the **NEXT >>** button will not be available. The screen will show which files were not found correctly. They are normally installed by the MSDSpro Updater in a folder called "*Updates\Index*" within the *MSDSpro Program* folder.

3. **Click the **NEXT >>** button**

The process of updating the internal data with the latest information contained on the current CD will begin, and a progress thermometer will be shown. Allow it to complete.



# Reports

## Reports Control Panel

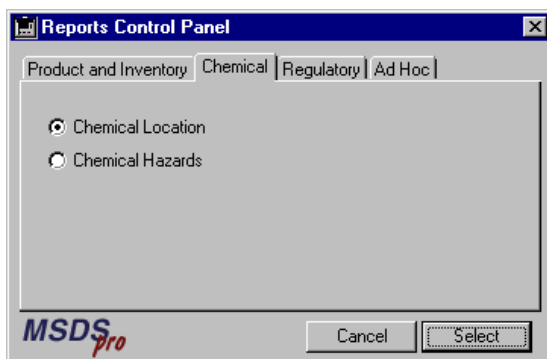
The *Reports Control Panel* allows Admin users to use various reports from the data in MSDSpro.

The *Reports Control Panel* is divided into four sections: Product and Inventory, Chemical, Regulatory, and Ad Hoc.

- ***Product and Inventory* reports include standard reports that Admin Users may regularly access.**

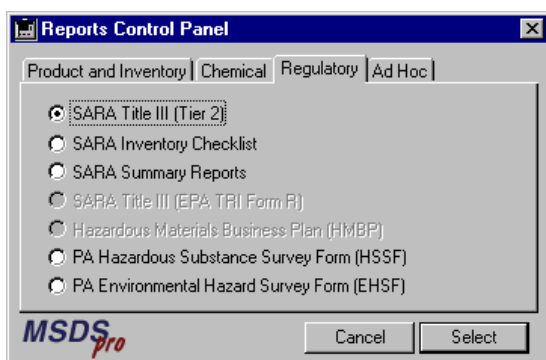


- ***Chemical* reports include standard reports that show what Chemicals are in use at specific Locations.**



## Reports Control Panel (Cont'd)

- **Regulatory** reports include standard reports that Admin Users may access to produce reports for Regulatory Agencies, such as SARA reports for the local and state emergency planning authorities.



- **Ad Hoc** reports provides access to produce reports and container labeling for custom needs.



## MSDS/Hazards by Location

*MSDS/Hazards by Location* is available from the *Reports Control Panel*. This allows for the batch printing of multiple MSDS documents or associated Hazard Summaries, by any Location entered in MSDSpro, with or without an index sheet. This feature is commonly used to print entire MSDS binders with index sheets. Only MSDS documents which are available will be included in this report.

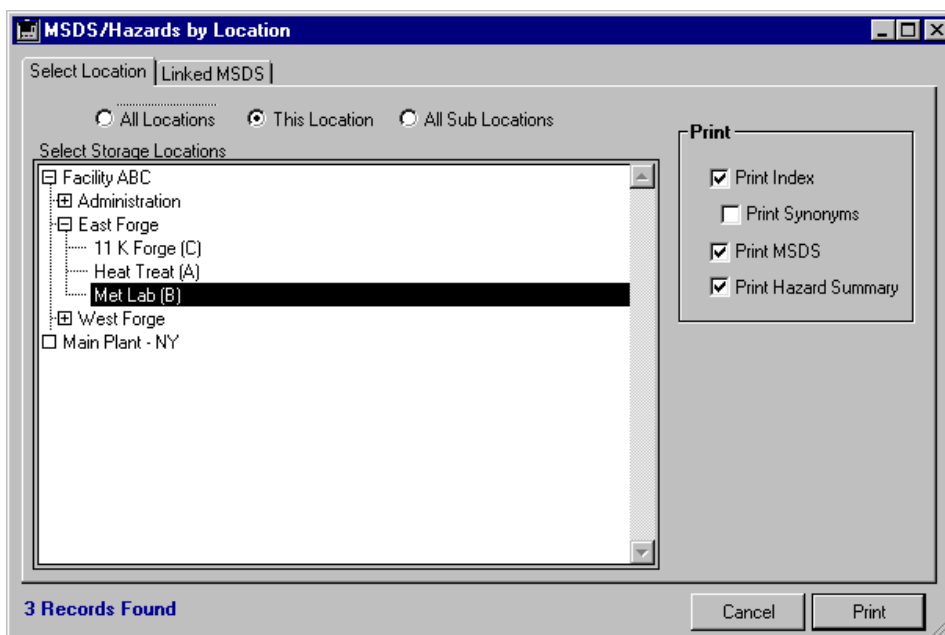
To print *MSDS/Hazards by Location*:

1. Choose ***MSDS/Hazards by Location*** from the *Reports Control Panel*, and click **SELECT**

The Storage Locations scrolling area will list all Locations within the MSDSpro database.

2. Select the Location to search

The Product records associated with the Location are found and the number found is shown.



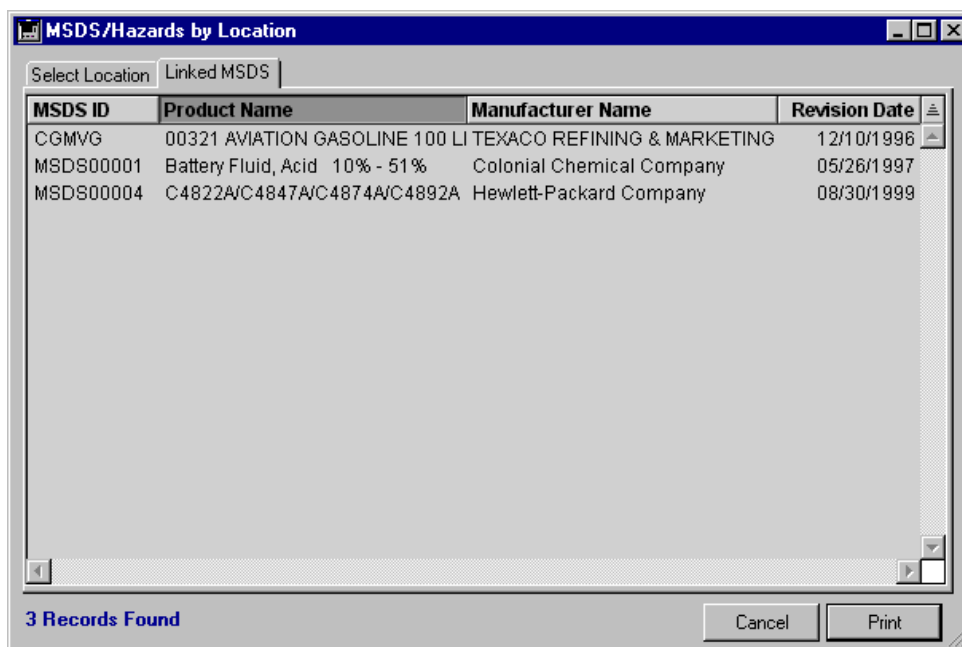
3. Select items to print (Index, Synonyms, MSDS, and Hazard Summary)

Any combination of items may be printed at one time. If Synonyms is selected, an alternate index will be printed that contains all the Synonyms associated with each Product, in addition to the normal index listing the Product name.

## MSDS/Hazards by Location (Cont'd)

4. Click the *Linked MSDS tab* to preview the MSDS documents that were found for the selected Location(s)

Click **PRINT** to print the Index, Synonyms, MSDS documents, or Hazard Summaries, as determined on the *Select Location tab*.



The screenshot shows a software window titled "MSDS/Hazards by Location". It has two tabs: "Select Location" and "Linked MSDS". The "Linked MSDS" tab is active, displaying a table with the following data:

| MSDS ID   | Product Name                   | Manufacturer Name           | Revision Date |
|-----------|--------------------------------|-----------------------------|---------------|
| CGMVG     | 00321 AVIATION GASOLINE 100 LI | TEXACO REFINING & MARKETING | 12/10/1996    |
| MSDS00001 | Battery Fluid, Acid 10% - 51 % | Colonial Chemical Company   | 05/26/1997    |
| MSDS00004 | C4822A/C4847A/C4874A/C4892A    | Hewlett-Packard Company     | 08/30/1999    |

At the bottom of the window, it says "3 Records Found". There are "Cancel" and "Print" buttons at the bottom right.

## Inventory by Location

*Inventory by Location* is available from the *Reports Control Panel*. This allows printing of all Inventory and Chemical records for Products at specific Storage Locations.

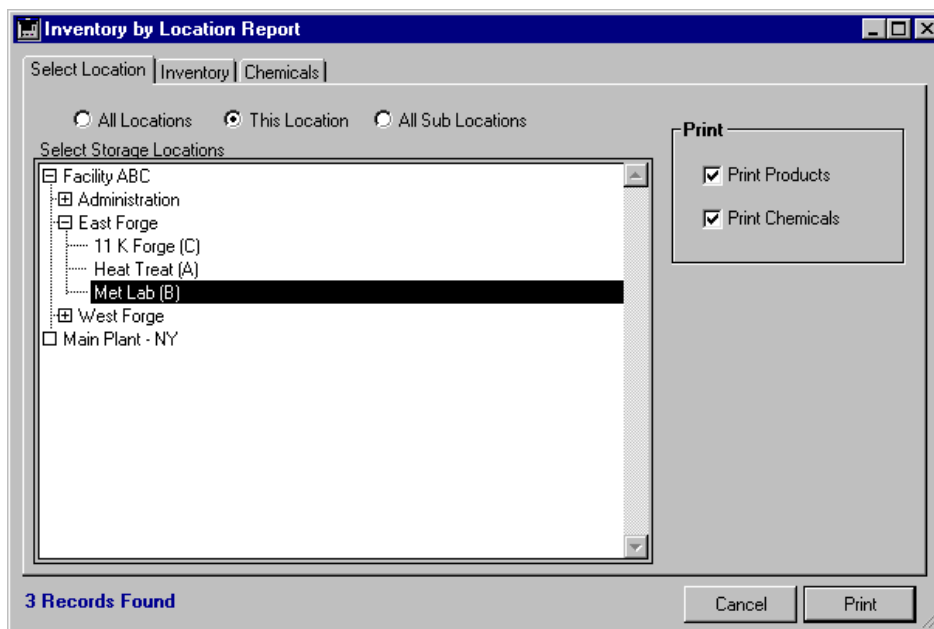
To create an *Inventory by Location* report:

1. **Choose *Inventory by Location* from the *Reports Control Panel*, and click SELECT**

The Storage Locations scrolling area will list all Locations within the MSDSpro database.

2. **Select the Location to search**

The Product records associated with the Location are found and the number found is shown.



3. **Select items to print (Products and/or Chemicals)**

Either Products or Chemicals may be printed at one time.



## Inventory by Location (Cont'd)

- Click the **Inventory** tab to preview the Inventory records that were found for the selected Location(s)

Inventory by Location Report

Select Location | **Inventory** | Chemicals

| Product Name                   | Start Date | Container Size | Container Unit | Average |
|--------------------------------|------------|----------------|----------------|---------|
| 00321 AVIATION GASOLINE 100 LL | 01/01/1998 | 7              | US Gallons     |         |
| Battery Fluid, Acid 10% - 51%  | 01/01/1998 | 7              | US Quarts      |         |
| C4822A/C4847A/C4874A/C4892A    | 01/01/1998 | 7              | US Gallons     |         |

3 Records Found

Cancel Print

- Click the **Chemicals** tab to preview the associated Chemical records that were found at the selected Location(s)

Click **PRINT** to print the Inventory records.

Inventory by Location Report

Select Location | Inventory | **Chemicals**

| Product Name                   | Chemical Name        | CAS Number    | Weight %    |
|--------------------------------|----------------------|---------------|-------------|
| C4822A/C4847A/C4874A/C4892A    |                      | TRADE SECRET  | BALANCE %   |
| C4822A/C4847A/C4874A/C4892A    |                      | NOT SPECIFIED | <0.5%       |
| C4822A/C4847A/C4874A/C4892A    | WATER                | 7732-18-5     | >60%        |
| C4822A/C4847A/C4874A/C4892A    | 2-pyrrolidone        | 616-45-5      | <10%        |
| 00321 AVIATION GASOLINE 100 LL | ETHYL BENZENE *96-2* | 100-41-4      | 100% - 100% |
| Battery Fluid, Acid 10% - 51%  | Sulfuric Acid        | 7664-9-39     | 10% - 51%   |

3 Records Found

Cancel Print

## Product Summary

*Product Summaries* are summarized versions of the Product information for a particular MSDS. The *Product Summary* will include information about the Product, Manufacturer, NFPA or HMIS hazard rating, hazardous ingredients, and associated Phrases.

To create *Product Summaries* for a selection of Products:

1. Choose **Product Summary** from the **Reports Control Panel**, and click **SELECT**
2. Choose **Use All Records**, or to **Execute Query to Find Records**, and click **SELECT**

For detailed information describing how to use the *Query editor*, see *The Query Editor* in *Database Conventions*.

After finding Product records, the *Product Summaries* will be printed.

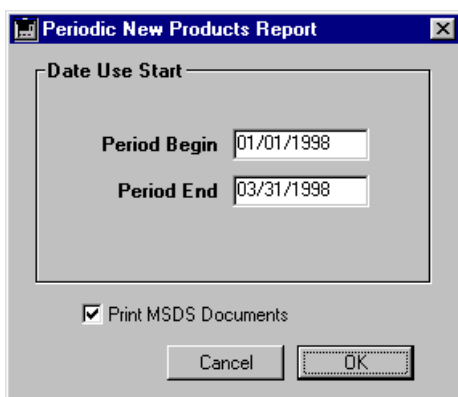


## Periodic New Products

MSDSpro allows the DBA to find Products which have been added during a specific time period. For instance, it may be necessary to know which Product records have been added during the first 3 months of the current year for Emergency Response planning.

To create a *Periodic New Products* report:

1. Choose ***Periodic New Products*** from the *Reports Control Panel*, and click **SELECT**
2. Enter the ***Period Begin*** date and the ***Period End*** date



3. Choose to ***Print MSDS Documents*** if it is necessary to also have all documents in addition to the listing of the Product Names, Manufacturer Names, and Revision Dates
4. Click **OK** to print

## Manufacturer Request

MSDSpro allows an administrator to send an update request (e-mail or printed) to a selected MSDS chemical Manufacturer. Sending the *Manufacturer Request* can simplify the process of requesting new MSDS documents from the chemical manufacturer.

To create a *Manufacturer Request*:

1. Choose **Manufacturer Request** from the **Reports Control Panel**, and click **SELECT**
2. Type a first few characters of the **Manufacturer** name and press the **Tab** key, or click **SELECT MANUFACTURER**

If there are multiple matches, a choice list will be displayed.

3. Select the appropriate **Manufacturer** from the choice list, if shown
4. Specify the date of the request (the default is today's date)
5. Modify the text of the letter if desired

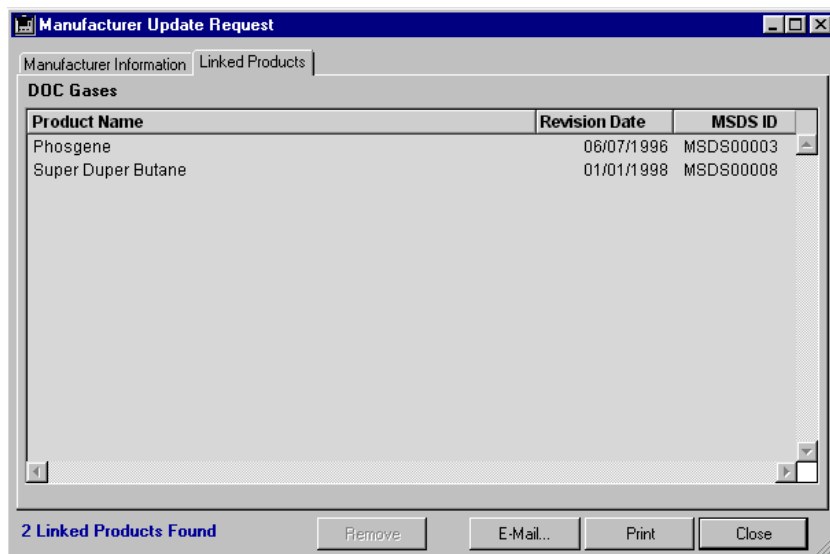
Changes will be saved for future use.

6. Click the **Linked Products** tab to review the list of **Products** which are found for the specified **Manufacturer**

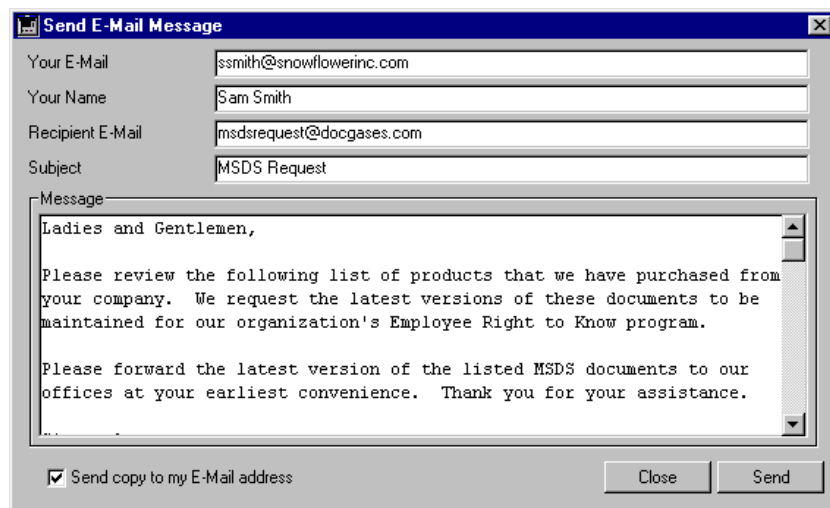
The screenshot shows a window titled "Manufacturer Update Request" with two tabs: "Manufacturer Information" and "Linked Products". The "Manufacturer Information" tab is active. It contains a "Manufacturer" text box with "DOC Gases" entered, a "Date" text box with "11/18/1999", and a "Select" button. Below the "Manufacturer" text box is a list box containing the following text: "DOC Gases", "575 Mountain Avenue", "Murray Hill", "NJ 07974", and "Attn:". Below the list box is a large text area containing a pre-written letter template. The letter starts with "Ladies and Gentlemen," followed by a paragraph requesting the latest versions of MSDS documents for an Employee Right to Know program. It then asks to forward the latest version of the listed MSDS documents at the earliest convenience, thanks the recipient for their assistance, and ends with "Sincerely," and "Safety Coordinator". At the bottom of the window, there is a status bar that says "2 Linked Products Found" and three buttons: "E-Mail...", "Print", and "Close".

## Manufacturer Request (Cont'd)

6. Double-click a Product name or click REMOVE to remove it from the list of Products to e-mail/print, if desired
7. Click PRINT to print the letter, or E-MAIL to send an e-mail request to the Manufacturer



8. To send an e-mail request, complete the recipient e-mail information and click SEND



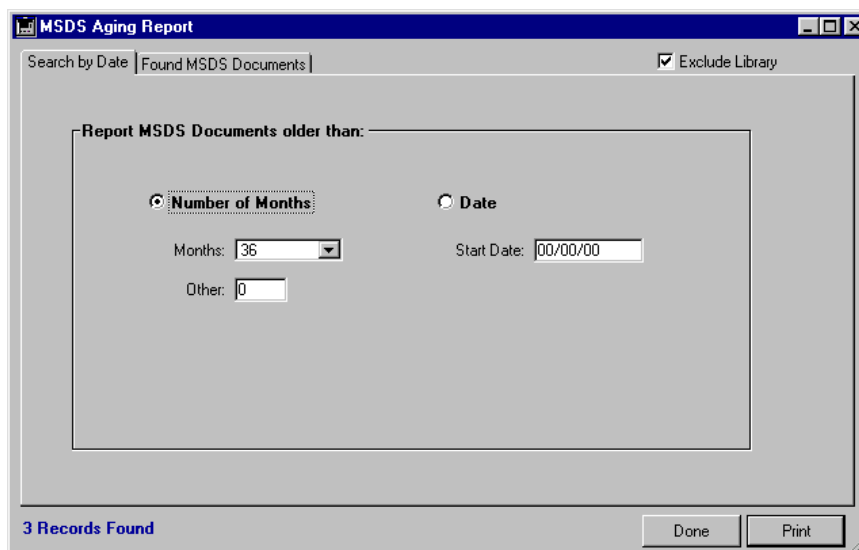
## MSDS Aging Report

To determine which MSDS documents are older than a certain number of months, or have revision dates before a certain date, choose *MSDS Aging Report* from the *Reports Control Panel*.

To create an *MSDS Aging Report*:

1. Choose *MSDS Aging Report* from the *Reports Control Panel*, and click **SELECT**
2. Either select the **Number of Months**, or enter the **Start Date**

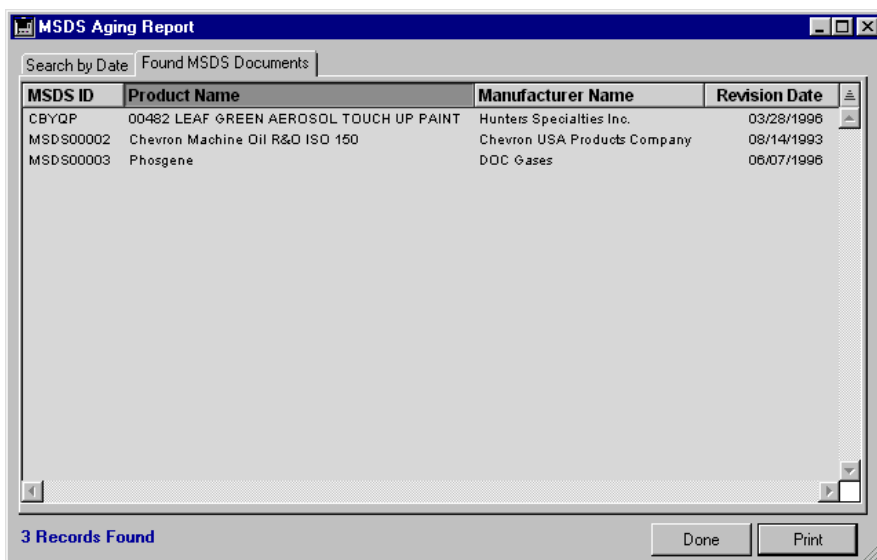
MSDS documents which match the age requirement are found.



The screenshot shows a window titled "MSDS Aging Report". At the top, there are two tabs: "Search by Date" and "Found MSDS Documents", with the second tab selected. To the right of the tabs is a checkbox labeled "Exclude Library" which is checked. The main area of the window contains the text "Report MSDS Documents older than:" followed by two radio button options: "Number of Months" (which is selected) and "Date". Under "Number of Months", there is a "Months:" label with a dropdown menu showing "36" and an "Other:" label with a text input field containing "0". Under "Date", there is a "Start Date:" label with a text input field containing "00/00/00". At the bottom left of the window, it says "3 Records Found". At the bottom right, there are two buttons: "Done" and "Print".

## MSDS Aging Report (Cont'd)

3. Click the *Found MSDS Documents* tab to review the documents found
4. Click PRINT to print the report



The screenshot shows a window titled "MSDS Aging Report". It has two tabs: "Search by Date" and "Found MSDS Documents", with the latter being selected. The window contains a table with four columns: "MSDS ID", "Product Name", "Manufacturer Name", and "Revision Date". There are three rows of data. At the bottom left of the window, it says "3 Records Found". At the bottom right, there are two buttons: "Done" and "Print".

| MSDS ID   | Product Name                            | Manufacturer Name            | Revision Date |
|-----------|---|------------------------------|---------------|
| CBYQP     | 00482 LEAF GREEN AEROSOL TOUCH UP PAINT | Hunters Specialties Inc.     | 03/28/1996    |
| MSDS00002 | Chevron Machine Oil R&D ISO 150         | Chevron USA Products Company | 08/14/1993    |
| MSDS00003 | Phosgene                                | DOC Gases                    | 06/07/1996    |

## Products without MSDS

MSDSpro allows Product records to be added to the system at any time, without requiring that an MSDS document be added. This facilitates the addition of MSDS and related data at any time, and increases convenience for the users.

Occasionally it is necessary to determine which Product records have no associated Document records. The *Products without MSDS* report is available from the *Reports Control Panel*. It will search the database for Product Records that have no associated MSDS Document record and create a report containing the records found.

To create a *Products without MSDS Report*:

1. Choose ***Products without MSDS*** from the *Reports Control Panel*, and click **SELECT**

If any Product records are found that do not have corresponding MSDS Document records, the report will be sent to the selected printer.



## Chemical Location

The *Chemical Location* report is available from the *Reports Control Panel*. This allows printing of all Chemical listings which are stored at specific Storage Locations, sorted by the Product it comprises.

To create a *Chemical Location* report:

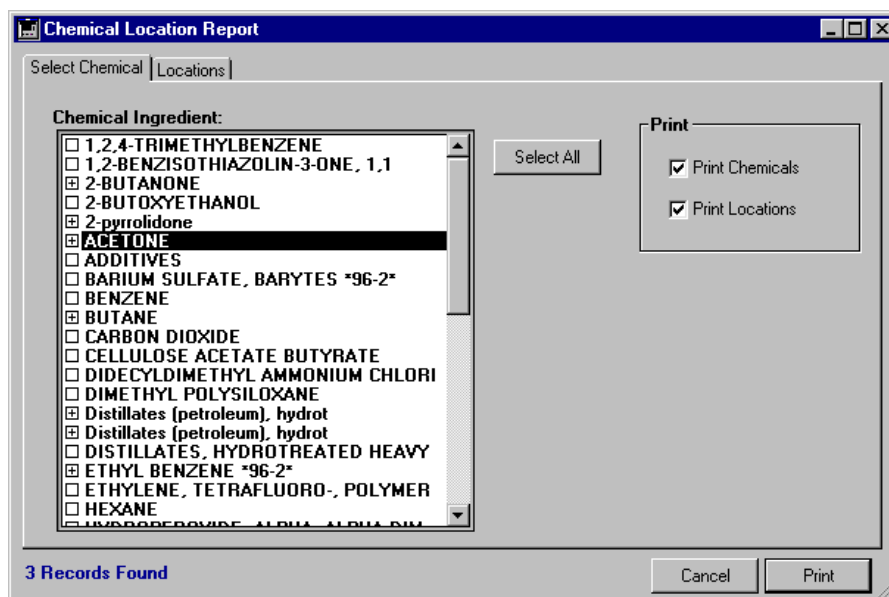
1. Choose **Chemical Location** from the *Reports Control Panel*, and click **SELECT**

The Chemical Ingredient scrolling area will display all Chemicals within the database. The first Chemical is selected by default.

2. Select the Chemical(s) to report

The number of Locations in which the Chemical is stored will be displayed under the list of Chemicals. If a plus sign (+) is shown to the left of a Chemical, clicking it will show the Product names that use the Chemical as an Ingredient.

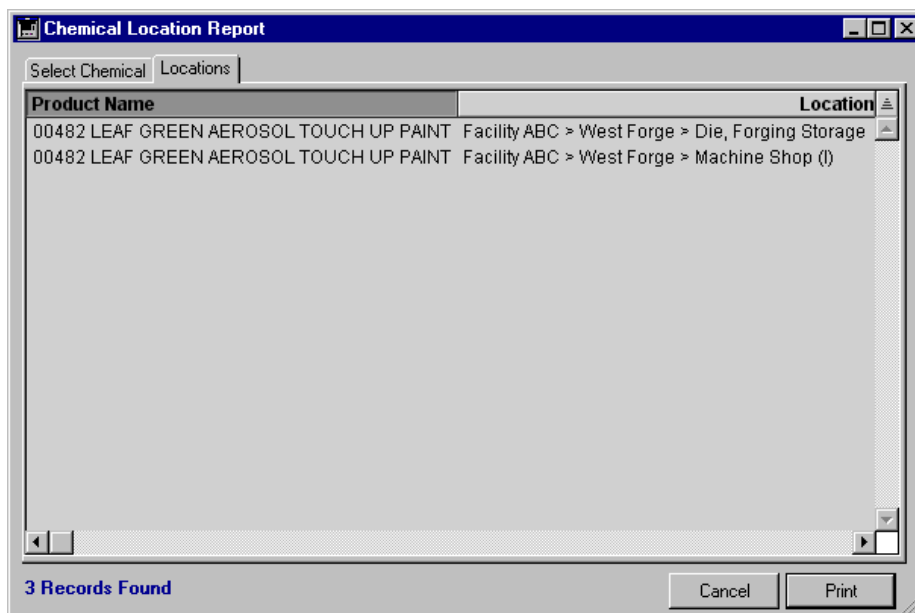
3. Choose whether to Print Chemicals with or without Locations by clicking the checkboxes



## Chemical Location (Cont'd)

4. Click the *Locations* tab to preview the Products and Locations which contain the selected Chemical(s)

The number of Locations in which the Chemical is stored will be displayed under the list of Chemicals.



5. Click PRINT to print the report

## Chemical Hazards

The *Chemical Hazards* report allows interactive searching of Chemicals by their associated hazards (as entered with Federal and State regulatory flags.) After a specific Chemical is found by the associated hazards, the *Chemical Location* report may be used to locate the actual Location of the Products which contain the Chemical.

To create a *Chemical Hazards* report:

1. Choose **Chemical Hazards** from the **Reports Control Panel**, and click **SELECT**

The *Chemical Hazards Report* window appears.

2. Select the Hazards required from the **Hazards tab** and **State Lists tab**
3. Select **Search Match**, requiring that *Any* selected Hazards are sufficient, or if *All* of the Hazards will be required for each Chemical during this search
4. Select **Inventory**, to *Require* Inventory records to exist, or if Inventory records are *Not Required* to exist for each Chemical during this search
5. Click the **SEARCH** button

The screenshot shows the 'Chemical Hazards Report' window. It has two tabs: 'Hazards' and 'State Lists'. Under 'Hazards', there are two columns of checkboxes. The first column has 'EHS' (checked), 'Carcinogen' (checked), 'Possible Carcinogen' (checked), and 'Haz Substance List' (unchecked). The second column has 'TSCA List' (unchecked), 'SARA 313 Reportable' (unchecked), 'RCRA U Series' (unchecked), and 'WHMIS Ingredient Disclosure' (unchecked). To the right, there are two sections: 'Search Match' with 'Any' (selected) and 'All' (unselected) radio buttons, and 'Inventory' with 'Required' (selected) and 'Not Required' (unselected) radio buttons. A 'Search' button is located below the checkboxes. Below these sections is a table with two columns: 'CAS Number' and 'Chemical Name'. The table contains two rows: '106-97-8 BUTANE' and '1330-20-7 XYLENE'. At the bottom left, it says '2 Records Found'. At the bottom right, there are 'Done' and 'Print' buttons.

| CAS Number | Chemical Name |
|------------|---------------|
| 106-97-8   | BUTANE        |
| 1330-20-7  | XYLENE        |

## SARA Title III (Tier 2)

MSDSpro generates the annual *SARA Title III (Tier 2)* report based on Product (or Chemical) quantities stored at a location. Product quantities can be either manually entered into MSDSpro or calculated automatically. Manually entering product quantities into MSDSpro is covered on pp 4-54. In order for MSDSpro to accurately calculate the *SARA Title III (Tier 2)* report, six fields must be filled out. The first four fields are found on the *Inventory Data Entry form*. The *Inventory Data Entry form* is covered on pp. 4-51 through 4-56.

Inventory Start Date —

The screenshot shows the 'Edit Inventory record' window. The 'SARA Inventory' tab is selected. The 'Start Date' field is highlighted with a line pointing to the text 'Inventory Start Date' on the left. The form contains various input fields for product and inventory details, including dates, checkboxes, and text boxes. At the bottom are 'Delete', 'Cancel', and 'Save' buttons.

- **Inventory Start Date:** The Inventory Start Date field lists the date that the Product was first stored at a Location

MSDSpro automatically enters the current date into this field when a Product is first added as Inventory to a Location. If a different Inventory Start Date is desired, any MSDSpro administrator can edit this field at any time.

## SARA Title III (Tier 2) (Cont'd)

The screenshot shows the 'Edit Inventory record' window. At the top, there are fields for 'Product Name' (00321 AVIATION GASOLINE 100 LL), 'Storage Name' (Equipment 1), and 'Storage Location' (Main Plant - NY > Control Center 1 > Unit 1 > Equipment 1). Below these are tabs for 'Physical Inventory', 'SARA Inventory', and 'SARA Containers'. The 'SARA Containers' tab is active, showing a list of items with 'HL11397' selected. To the right of the list are fields for 'Item Number' (HL11397), 'Number Containers' (1), 'Container Size' (62250), and 'Container Unit' (Pounds). Below these are 'SARA Codes' for 'Container Type' (A Above ground tank), 'Container Pressure' (1 Ambient pressure), and 'Container Temperature' (4 Ambient temperature). At the bottom are 'Container Properties' for 'Days on Site' (365), 'Current Amount' (62,250), 'Max Amount' (62,250), and 'Average Amount' (62,250). Buttons for 'Add', 'Delete', 'Cancel', and 'Save' are at the bottom right.

- **Number of Containers:** The Number of Containers field lists the quantity of containers that are used to store the Product

For example, if a Product is stored at a location in ten 55-gallon drums, the Number of Containers field should contain the number ten.

- **Container Size:** The Container Size field lists the size of each container

Using the previous example, the Container Size field should contain the number fifty-five.

- **Container Unit:** The Container Unit field lists the units of weight or volume that the inventory quantity is measured in

Using the previous example, the Container Unit field should contain the word gallons.

## SARA Title III (Tier 2) (Cont'd)

Product: 15 of 181

Product | Document | Synonym | Inventory | Ingredient | PPE & Hazards | Phrases | Stock | Specific | Label

Product Name: Aniline blue

MSDS ID: MSDS00860

Company Name: MALLINKRODT-BAKER (FORMALLY J.T. BAKER COMPANY)

Document Type: ANSI Text, Text, Image, PDF, HTML

Library Document: ☐ No Auto Update: ☐

Product Dates | Characteristics | Properties

Specific Gravity: 0.000000

Density lbs./Gal.: 4.692000

Flash Point:

FP Method:

LEL: 0.0000

UEL: 0.0000

Pounds Per Cubic Foot: 0.000000

Pure: ☒ Mixture: ☐

CAS Number: 28631-66-5

Duplicate Delete Cancel Save

Specific Gravity &  
Density fields

- **Specific Gravity or Density:** The Specific Gravity and Density fields are used by MSDSpro to convert inventory quantities from a volume measurement such as gallons to a weight measurement such as pounds

Only one of the two fields needs to be filled in for MSDSpro to calculate quantities for the SARA Tier 2 report. If both fields contain information, MSDSpro will use the Specific Gravity field. Information is entered into the Specific Gravity and Density fields on the **Characteristics tab** under the **Product tab** within the Product record.

**SARA Title III (Tier 2)** (Cont'd)

**Add Ingredient record**

Product Name  
**Aniline blue**

CAS Number   ☐ Trade Secret

Min Weight %

Ingredient Name

Max Weight %

Min PPM  Max PPM  Weight %

|                    |                                 |                     |
|--------------------|---------------------------------|---------------------|
| EHS                | TLV ACGIH <input type="text"/>  | SARA 313 Reportable |
| TSCA List          | TPQ Pounds <input type="text"/> | SARA 311/312 Exempt |
| Haz Substance List | <input type="text"/>            | SARA 313 Exempt     |

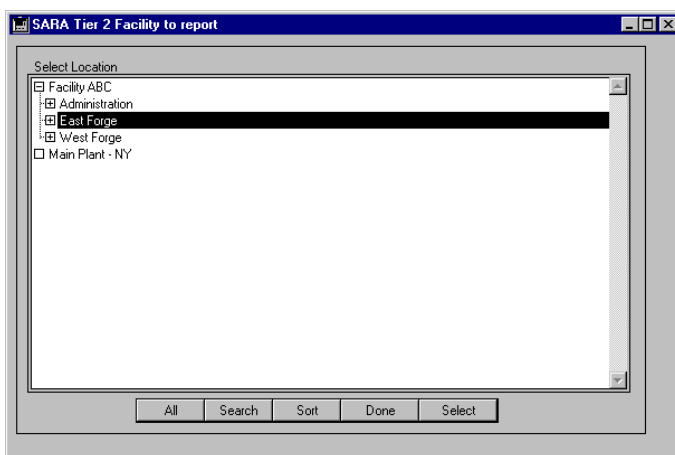
- **Maximum Weight Percent:** If a Chemical is listed as an Ingredient in a Product, MSDSpro uses the information in the Maximum Weight Percent field to calculate the total amount of the Chemical in that Product

MSDSpro does this for every Product that contains the Chemical as an Ingredient and then sums the total amount of the Chemical in each Product to arrive at a total stored as Inventory. The Maximum Weight Percent field is located on the *Ingredient Data Entry form*. This form is covered on pp. 4-51 through 4-56.

## SARA Title III (Tier 2) (Cont'd)

To create a *SARA Title III (Tier 2)* report:

1. Choose **SARA Title III (Tier 2)** from the *Reports Control Panel*, and click **SELECT**
2. Select the Location upon which to run the report



3. Click the **SELECT** button

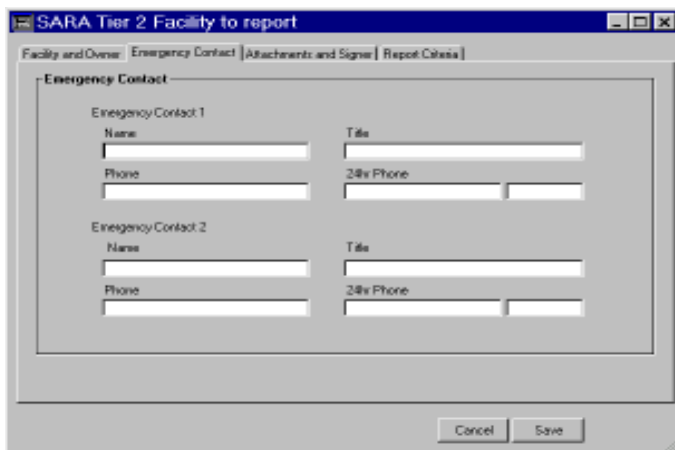
Clicking on the **SELECT** button loads the *SARA Tier 2 Facility to Report Data Entry form*. Information entered in this form appears in the *SARA Title III (Tier 2)* report and can be saved by clicking on the **SAVE** button. If contact information has not yet been created for this Location, MSDSpro will prompt you to create it at this time.

4. Verify Facility and Owner Information is accurate



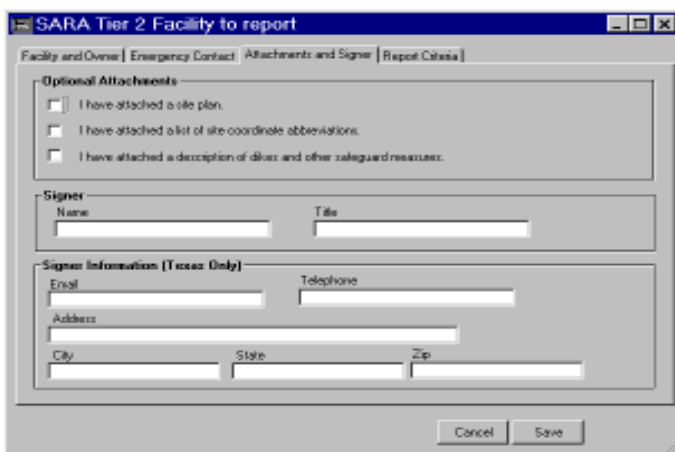
## SARA Title III (Tier 2) (Cont'd)

### 5. Verify Emergency Contact Information



The screenshot shows the 'SARA Tier 2 Facility to report' window with the 'Emergency Contact' tab selected. The window has four tabs: 'Facility and Owner', 'Emergency Contact', 'Attachments and Signer', and 'Report Criteria'. The 'Emergency Contact' tab contains two sections: 'Emergency Contact 1' and 'Emergency Contact 2'. Each section has four text input fields: 'Name', 'Title', 'Phone', and '24hr Phone'. At the bottom right of the window are 'Cancel' and 'Save' buttons.

### 6. Fill in the Name and Title information



The screenshot shows the 'SARA Tier 2 Facility to report' window with the 'Attachments and Signer' tab selected. The window has four tabs: 'Facility and Owner', 'Emergency Contact', 'Attachments and Signer', and 'Report Criteria'. The 'Attachments and Signer' tab contains two sections: 'Optional Attachments' and 'Signer'. The 'Optional Attachments' section has three checkboxes with labels: 'I have attached a site plan.', 'I have attached a list of site coordinate abbreviations.', and 'I have attached a description of dikes and other safeguard measures.'. The 'Signer' section has two text input fields: 'Name' and 'Title'. Below the 'Signer' section is a section titled 'Signer Information (Texas Only)' which contains four text input fields: 'Email', 'Telephone', 'Address', and 'City'. At the bottom right of the window are 'Cancel' and 'Save' buttons.

Check the appropriate checkbox if a site plan, site coordinate abbreviations or a description of other safeguard measures will be submitted with the *SARA Title III (Tier 2)* report. MSDSpro does not have the capability of creating these attachments but will indicate in the *SARA Title III (Tier 2)* report whether or not any of these optional attachments are being submitted with the report.

## SARA Title III (Tier 2) (Cont'd)

The screenshot shows the 'SARA Tier 2 Facility to report' dialog box. The 'Report Criteria' tab is selected. The 'Date Range for Report' section includes 'From' (01/01/2000), 'To' (12/31/2000), 'Include Non Periodic' (checkbox), 'Days Onsite (if unspecified)' (365), and 'Reporting Year' (2000). The 'Reporting Quantities' section has 'Hazardous Chemicals' (10,000.0 Pounds) and 'EHS Chemicals' (500.0 Pounds). The 'Report Type Selection' section has 'Federal Tier 2 Report' (checked), 'Chemical Inclusion Report' (checkbox), and 'Chemical Exclusion Report' (checkbox). A 'Save Data to Disk File' checkbox is at the bottom left. Callouts from the right point to the 'Include Non Periodic' checkbox and the 'Chemical Inclusion Report' checkbox. At the bottom are 'Cancel', 'Save', and 'Print' buttons.

### 7. Select the Date Range, Days Onsite, and Reporting Quantities for the report

- The Date Range field determines the period over which quantities will be calculated

This is most often the previous calendar year. Inventory that is present at any time during the date range will be calculated.

- The Days on Site field lists the default number of days a Product has been stored at a Location
- If Inventory quantities meet or exceed the amount entered in the Reporting Quantities field, the Product or Chemical will be included in the *SARA Title III (Tier 2)* report

### 8. Select whether to generate the Chemical Inclusion report and/or include non periodic products

- Selecting the Include Non Periodic checkbox will add to the *SARA Title III (Tier 2)* report all those Products that have been selected as non-periodic

A Product is selected as non-periodic only if it is not permanently stored at a Location. A Product is flagged as non- periodic in the *Inventory Data Entry form*.

- Selecting the Use Chemical Specific TPQ if Present checkbox tells MSDSpro to use a threshold planning quantity specific to a Chemical if one has been entered

A TPQ for a Chemical is entered in the *Chemical Data Entry form*.

- Selecting the Chemical Inclusion Report checkbox prints out this additional report

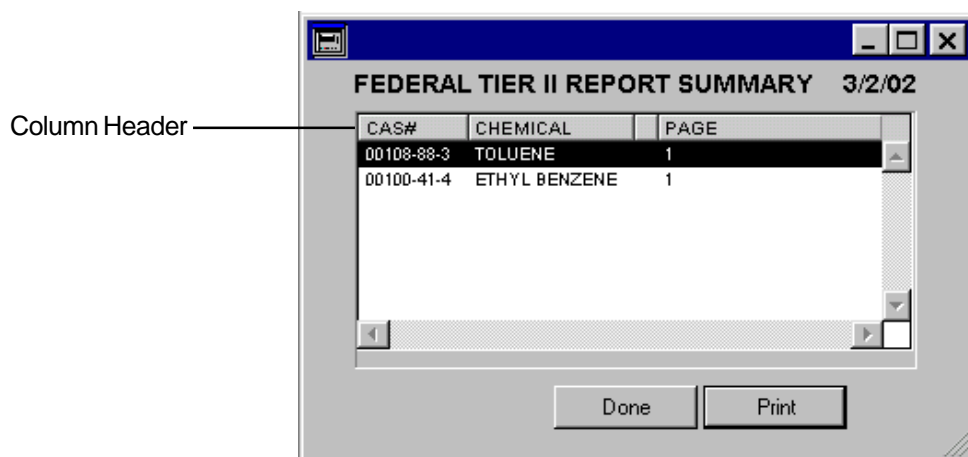
The Chemical Inclusion report provides a list of every Chemical in the *SARA Title III (Tier 2)* report and shows which Products contain each Chemical as an Ingredient.

## SARA Title III (Tier 2) (Cont'd)

8. Select whether the report to be generated should be the Federal, Texas or Louisiana *SARA Title III (Tier 2)* report
9. Click PRINT to print the report(s) selected

### Federal Tier II Report Summary:

Once the SARA Tier II report is finished, you may print an index of the report called the *Federal Tier II Report Summary*. This summary may be sorted by CAS#, Chemical Name or Page Number.



- Click on a column header to sort the summary by that column

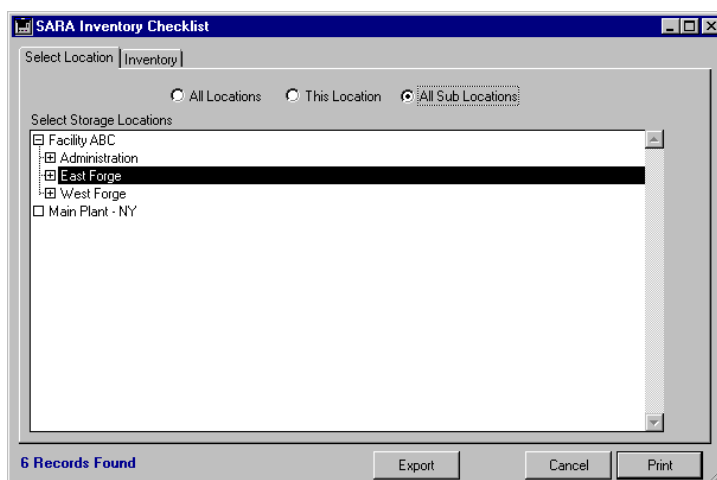
## SARA Inventory Checklist

MSDSpro generates the annual *SARA Title III (Tier 2)* report based on Inventory and quantities. The *SARA Inventory Checklist* may also be saved to the hard drive for external data collection use.

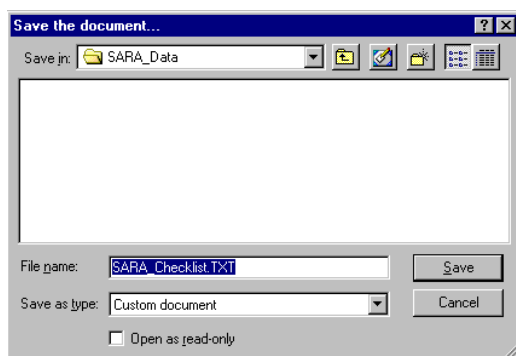
To export a *SARA Inventory Checklist*:

1. Choose **SARA Inventory Checklist** from the **Reports Control Panel**, and click **SELECT**
2. Select the Location to report

The Inventory records associated with the Location are found and the number found is shown.



3. Click the **EXPORT** button
4. Type a filename for the new file in the **Save File** window



5. Click the **SAVE** button to export the data to the new file

## Labels

Container *Labels* are available from the *Reports Control Panel*.

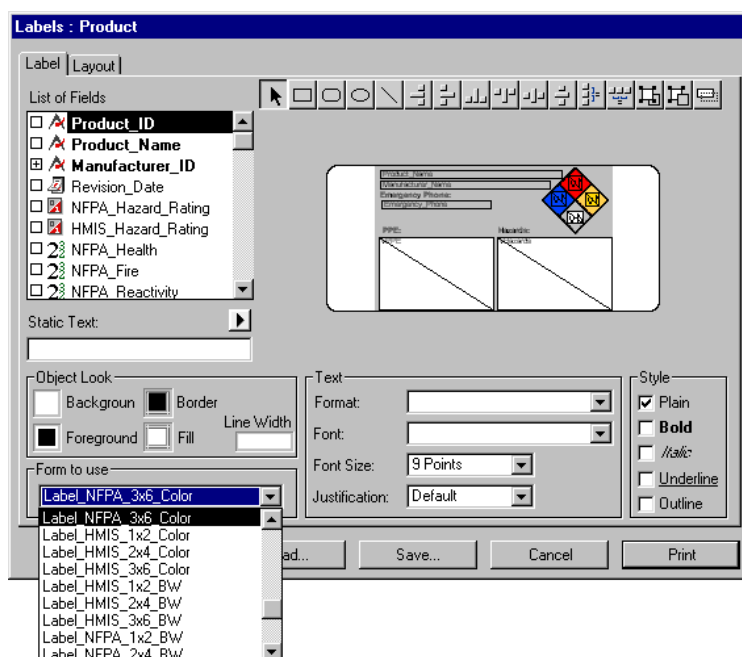
To create *Labels*:

1. Select *Labels* from the *Reports Control Panel*, and click **SELECT**
2. Select **Use All Records** or **Execute Query to Find Records**, and click **Select**

Usually, Executing a Query to Find Records is the best method to print Labels. For detailed information describing how to use the *Query editor* see *The Query Editor* in *Database Conventions*.



3. Select the Form to use from the list, configure the Layout options, and click **PRINT**

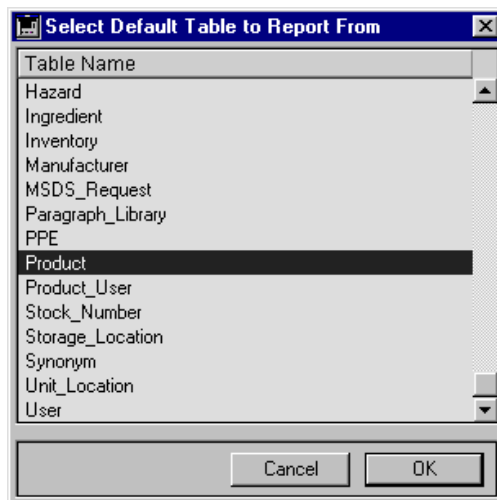


## Custom Reports (Ad-Hoc Quick Reports)

*Custom Reports (Ad-Hoc Quick reports) are available from the Reports Control Panel.*

To create a *Custom Report*:

1. **Select *Custom Reports* from the *Reports Control Panel*, and click **SELECT****
2. **Select the default table to report in the scrolling list of table names, as shown:**



3. **Enter a search criteria using the *Query editor***

For detailed information describing how to use the *Query editor*, see *The Query Editor* in *Database Conventions*.

4. **Create the Quick Report using the graphical *Quick Report editor***

For detailed information describing how to use the *Quick Report editor*, see *Quick Reports* in *Database Conventions*.

# MSDSpro Web Technology

## Understanding MSDSpro Web Server

MSDSpro Web Server was created to be a simple, reliable method to deliver high quality standardized MSDS documents to employees over a company network, or *intranet*, with zero administration.

The problem associated with traditional web servers and intranet systems is the high cost of maintenance. Imagine the amount of effort needed to compile and publish hundreds or thousands of MSDS documents for searching and viewing through a web browser on your company intranet. A great deal of time and effort is therefore saved by relying upon a dynamic database system to deliver this information in an effective manner.

MSDSpro Web Server is the most simple and effective database delivery of standardized MSDS documents available. The web browsers can be Netscape Navigator® or Internet Explorer® for Windows® Macintosh®, Power Macintosh®, or UNIX.

When MSDSpro Enterprise or MSDSpro PlusWeb is launched, the **internal web server** is started (no additional web server application or service is used). It uses a variable number of internal “web processes” which “listen” on the specified TCP Port Number for incoming Web User requests. Each Web User request is handled individually and concurrently, producing a high-performance multiprocessing web server that is adaptable to all environmental conditions. Web Server configuration and tuning is allowed by optimizing settings in the Web Server Control Panel.

To access MSDSpro Web Server from a web browser, simply type the TCP/IP address (or if configured, the DNS name of the computer) in the “Location” or “Address” field of the web browser. For example, entering “192.168.0.3” will access the MSDSpro Web Server which is located at the IP Address of 192.168.0.3. No special addresses or filenames are needed.

## MSDSpro Web Server Requirements

MSDSpro Web Server requires that TCP/IP (“IP”) be correctly installed on the computer used as the web server. The IP address must be a static IP address.

### NOTE:

*If another web server application or service is currently running on the same machine, a TCP port number conflict may arise. Simply change the port number of either MSDSpro Web Server or the other web server application or service from the default value of 80 to another number, such as 81. To refer to this alternate IP address from any web browser, simply type the original IP address, such as 192.168.0.3, with an additional “:” and the new port number, such as 81. In this case, the web browser Location/URL would read “192.168.0.3:81”.*

## Launching MSDSpro Web Server

To Launch MSDSpro Enterprise Web Server:

1. Launch MSDSpro 4D Server (See pg. 1-4)

To Launch MSDSpro PlusWeb Web Server:

1. Launch MSDSpro PlusWeb (See pg. 1-16)
2. Logon as any user

## Configuring Web Server Settings

MSDSpro Web Server settings can be configured at any time by opening the MSDSpro *Web Server Control Panel*, allowing review and modification of the internal web server configuration. Open the *Web Server Control Panel* by selecting it from the Windows pull-down menu (MSDSpro PlusWeb), or by clicking on the **MODIFY WEB SETTINGS** button within the server application window (MSDSpro Enterprise)

### Web Server Control Panel - Web Server Configuration Tab

To revert all settings back to the original defaults, click the **DEFAULTS** button.

To edit the configuration, click the **EDIT** button.

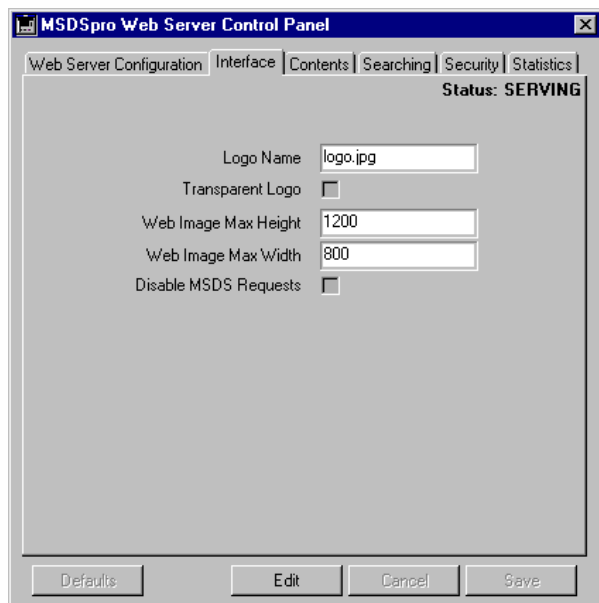
After editing the configuration you can **CANCEL** or **SAVE** the changes.



## Web Server Control Panel - Web Server Configuration Tab (Cont'd)

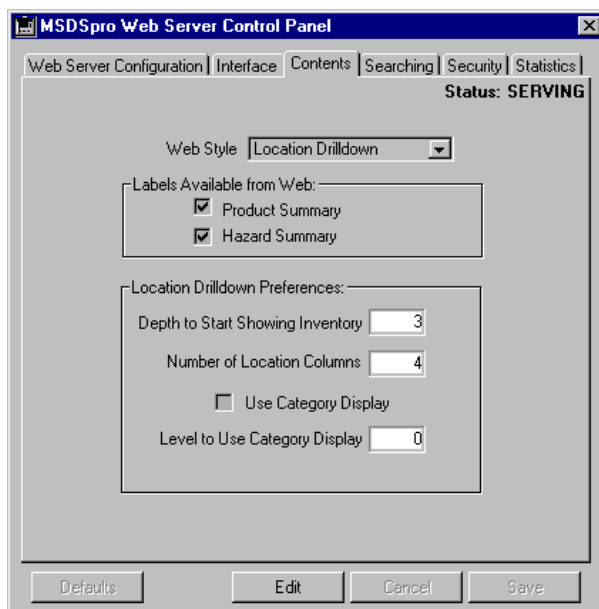
- **TCP/IP Address:** The address as configured in the Operating System (OS) network settings.
- **TCP/IP Port Number:** The port upon which the MSDSpro Web Server is broadcasting. The default value for the TCP/IP Port Number is 80.
- **Number of Web Processes:** The number of “listening” processes at any time. The maximum number of Web Processes is limited by available RAM. Default value is 3.
- **Bytes Per Web Process:** The amount of RAM to dedicate to each Web Process. The default value for Bytes Per Process is 48,000.
- **Max Search Results Returned:** The maximum number of matching records returned when a search is performed via the web browser. The default value is 500.
- **Exit URL Title:** The title under the company logo which indicates the company logo can be clicked to exit the MSDSpro area and “return” to another web URL/location.
- **Exit URL HTTP://:** The URL/location which will be used by the company logo when the web browser clicks the graphic image in the web interface to “return” to another web URL/location.
- **No Search Results Additional Message:** An additional message to display on the web browser following a query when no search results are found.
- **AUTO LOGON button:** Clicking this button will create a file called AUTOLOGON.TXT, found in the MSDSpro Program folder. This file enables MSDSpro PlusWeb/Web CD to start in Web Server mode without entering a password. Hold down the Shift Key during startup to disable.

## Web Server Control Panel - Interface Tab



- **Logo Name:** The name of the .JPG or .GIF file that will be used as the company logo on the web search interface. The shape of the graphic should be square to look correct on the web browser. Default name is "logo.jpg".
- **Transparent Logo:** Select this if the color at pixel coordinates 1,1 should be replaced with a transparent color on the web browser. Default is OFF.
- **Web Image Max Height and Width:** If MSDS document *images* are sent to the web browser, these settings determine the maximum size the image will be displayed on the browser interface. Note: the images are not modified, they are displayed by the web browser at a different pixel size.
- **Disable MSDS Requests:** MSDS documents can be requested through the web interface by the web user, if this MSDS Requests are not disabled. Default is OFF.

## Web Server Control Panel - Contents Tab



- **Web Style:** Controls the appearance and functionality of the MSDSpro Web Interface.
  - **Location Drilldown:** MSDS searches are performed within a specific Location or level of Locations. See pp. 8-10 through 8-13.
  - **Classic:** MSDS searches are performed based on Product Name, Manufacturer, MSDS ID, CAS Number, Locations, Stock Numbers or Ingredient Name. See pp. 8-14 through 8-16.
- **Product Summary Label:** Users may view the Product Summary, which includes Manufacturer emergency contact information and NFPA/HMIS information, if available.
- **Hazard Summary Label:** Users may view the Manufacturer emergency contact information, Synonyms, NFPA/HMIS information, if available. Also included is information entered under the PPE, Routes of Entry, Target Organs, Physical Hazards and Health Hazards tabs in the product record.
- **Depth to Start Showing Inventory:** Depth at which MSDS links to products in a location's inventory will be displayed. If the depth is set to 2, then inventory will be displayed at the second level as in Warehouse A -> Room 1.
- **Number of Location Columns:** Number of columns in which Location links will be displayed in. Fewer columns may be desired to make longer Location names more clearly readable.

## Web Server Control Panel - Searching Tab

|                             | Include                             | Name                     |
|-----------------------------|-------------------------------------|--------------------------|
| Product Name                | <input checked="" type="checkbox"/> | Product Name             |
| Product Name Sounds Like    | <input checked="" type="checkbox"/> | Product Name Sounds Like |
| Manufacturer Name           | <input checked="" type="checkbox"/> | Manufacturer             |
| MSDS ID                     | <input checked="" type="checkbox"/> | MSDS ID                  |
| Storage Location            | <input checked="" type="checkbox"/> | Storage Location         |
| Unit Location               | <input checked="" type="checkbox"/> | Unit Location            |
| Facility Location           | <input checked="" type="checkbox"/> | Facility                 |
| Stock Number (Internal)     | <input checked="" type="checkbox"/> | Stock Number (Internal)  |
| Stock Number (Manufacturer) | <input checked="" type="checkbox"/> | Stock Number (Mfg)       |
| Ingredient Name             | <input checked="" type="checkbox"/> | Ingredient Name          |
| Ingredient CAS Number       | <input checked="" type="checkbox"/> | Ingredient CAS Number    |

Search Name Language: USEnglish

Defaults Edit Cancel Save

- **Include Checkbox:** Include or exclude specific fields in a search performed via the web browser interface. Default for all searches is INCLUDED.
- **Name of Searches:** Specifies the name for each search as shown in the web browser interface. Default for all searches is the standard name.

## Web Server Control Panel - Security Tab

- **Required Referring URL:** Specifies a URL location (web address) which all web browsers must come from in order to use the MSDSpro web interface. If the web browser links to MSDSpro directly from this URL, the web browser will be allowed to use the MSDSpro web interface. If the web browser does not link to MSDSpro from the specified URL, the Security Failure Message is displayed and no access to the MSDSpro web interface is allowed. The specified Required Referring URL should have security methods implemented as part of a standardized network security system.
- **Security Failure Message:** A message displayed when a web browser attempts to utilize the MSDSpro web interface without properly linking from the Required Referring URL.
- **Proxy Server Username:** Specifies the username required by the Proxy Server in order for MSDSpro to import an MSDS from the Internet. Not all Proxy Servers require a valid username.
- **Proxy Server Password:** Specifies the password required by the Proxy Server in order for MSDSpro to import an MSDS from the Internet. Not all Proxy Servers require a valid password.

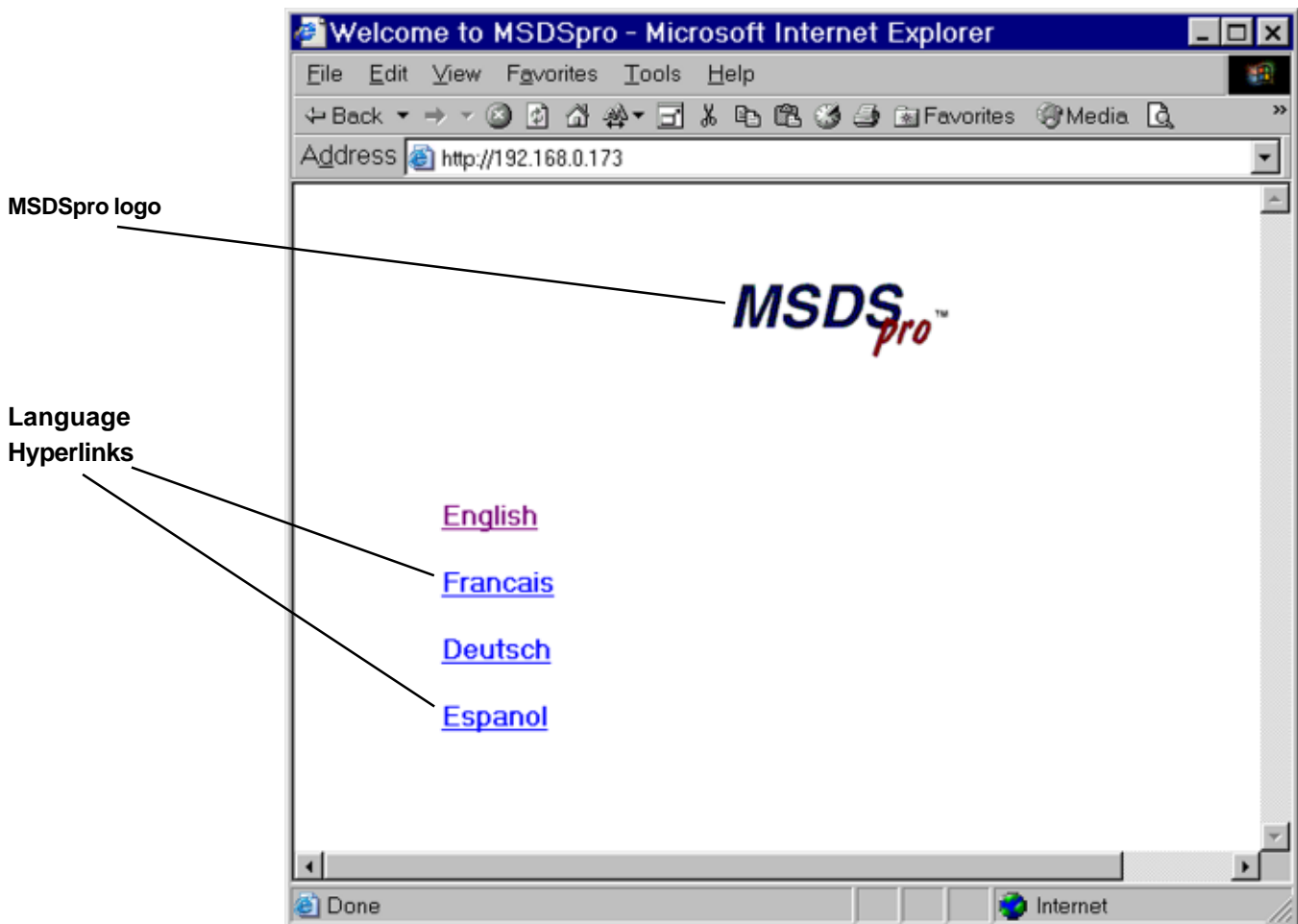
## Web Server Control Panel - Statistics Tab

| Status: SERVING         |            |
|-------------------------|------------|
| Session Start Date      | 11/18/1999 |
| Total Requests Handled  | 0          |
| Avg Response (in Ticks) | 0          |
| Total Products          | 24,803     |
| Total Manufacturers     | 27,645     |

- **Session Start Date:** The date the Web Server was started.
- **Total Requests Handled:** The number of “hits” the Web Server has handled since the session start date.
- **Avg Response:** The average time required to process each web request (expressed in ticks, 1/60th of 1 second).
- **Total Products:** The total number of Product records in the database at any given time.
- **Total Manufacturers:** The total number of Product Manufacturer records in the database at any given time.

## Using the Web Browser Interface

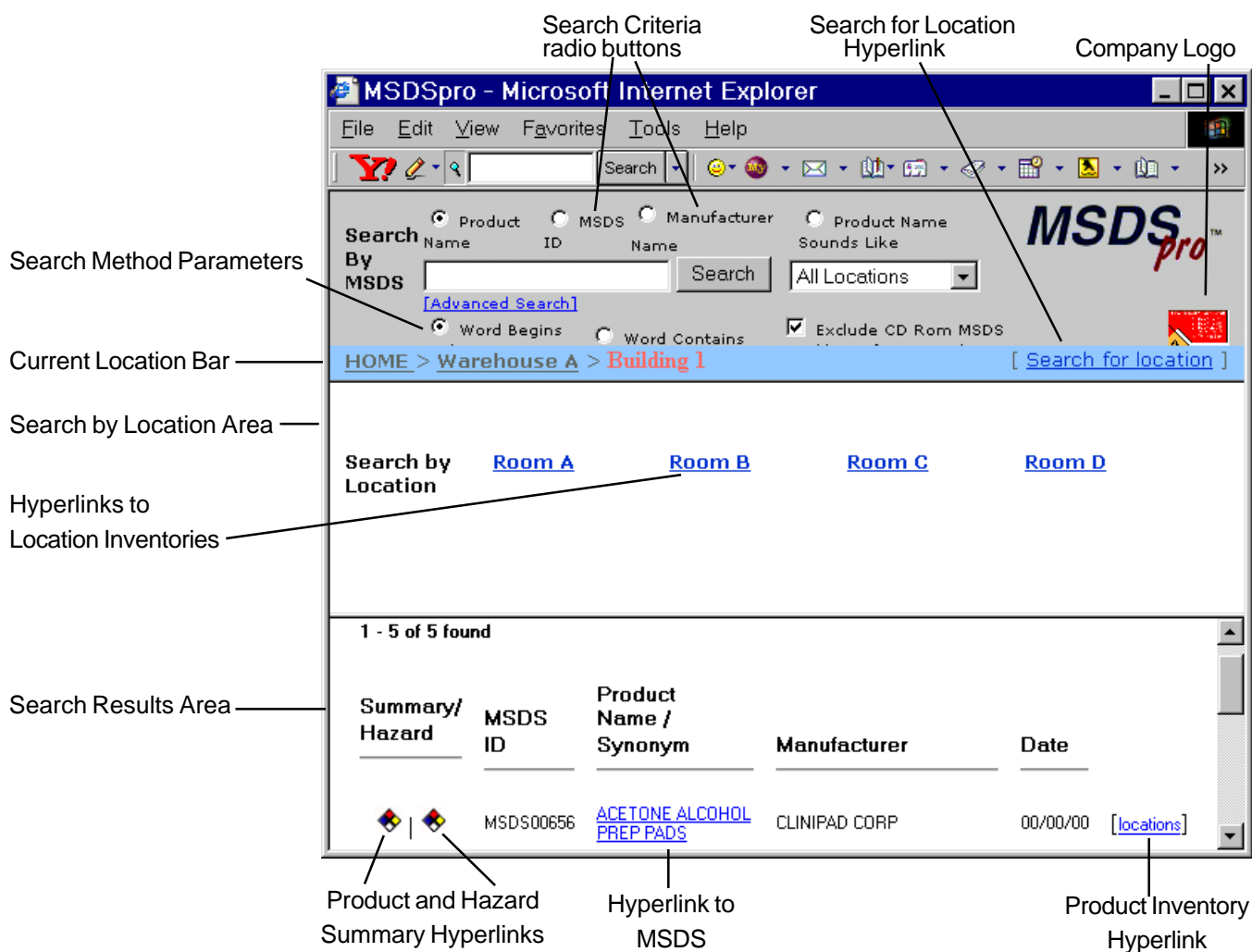
The web interface allows users who have access to the company intranet to view MSDSs in the MSDSpro database using their web browser. In order to view the MSDSpro database via the Web Interface, enter into the web browser the Internet Protocol (IP) address of the computer upon which MSDSpro 4D Server has been installed. For example, entering “192.168.0.3” will access the MSDSpro Web Server which is located at the IP Address of 192.168.0.3. Determining what IP address the MSDSpro Web Server is broadcasting on is covered on pages 8-2 and 8-3



The first screen users encounter when using the web interface is the “**Welcome to MSDSpro screen**”. The “**Welcome to MSDSpro screen**” consists of the MSDSpro logo and four hyperlinks. These hyperlinks serve up the rest of the MSDSpro web interface in four different languages; English, French, Spanish and German. Click on the desired language. Once a language has been chosen, the remaining portion of the web interface is served up in one of two differing layouts; the Location Drilldown interface and the Classic interface.

## Location Drilldown Interface:

The Location Drilldown interface is designed to allow users to view MSDSs through their web browser and also see which products are stored at a specific location at any given time. The Location Drilldown Interface consists of the Search Area, the Current Location Bar, the Search by Location Area and the Inventory Display Area:



**Search Area:** The search area is the top portion of the Location Drilldown Interface. In the search area, the string to search on is entered and the search parameters are set. The Search Area contains the Search field, the Search field and Search Method radio buttons, and the Company Logo.

**Search field:** The Search by MSDS field is where the search criteria is entered.



## Location Drilldown Interface (Cont'd)

**Search field:** The Search field defines what will be searched upon. For example, performing a search with “Product Name” selected will return matches only to the Product Name field within the product record. The Search field includes:

- **Product Name**
- **MSDS ID**
- **Manufacturer Name**
- **Product Name Sounds Like**

**Search Method parameters:** The Search Method parameters define how searching will occur. They are:

- **Word Begins With/Word Contains:** The search method “Word Contains” finds only those records in the database or library that contain the search criteria. Word Begins With finds only those records that begin with the search string.
- **All Locations/Only this Location/All Sub Locations:** Determines which locations will be searched for the search string. If All Locations is selected, the search string will search for products as inventory at all locations as well as products that are not currently set as inventory at any particular site. Choosing Only this location on the pull down menu will search for products only in the location listed in the Location Bar. Choosing All Sub Locations searches all the sub locations that have been created in MSDSpro. A sublocation is a location that resides within another location.
- **Exclude/Include CD-ROM MSDS library:** Controls whether or not the MSDSpro CD Library will be included in the search.

**Web Logo:** The web logo resides on the right hand side of the Search Area. The web logo is added to the web interface from the **Company Interface** tab under the *Administrative Preferences Entry form*. It is usually the logo of the company that has purchased MSDSpro. The web logo can also be a hyperlink. The web logo and the Internet address (URL) of the web logo’s link is set in the Web Server Control Panel.

**Search by Location Area:** The search by location portion of the web interface displays the sublocations for the current location. In the figure on the preceding page, the web interface is displaying Rooms A, B, C, & D, sublocations of the current location, Building 1.

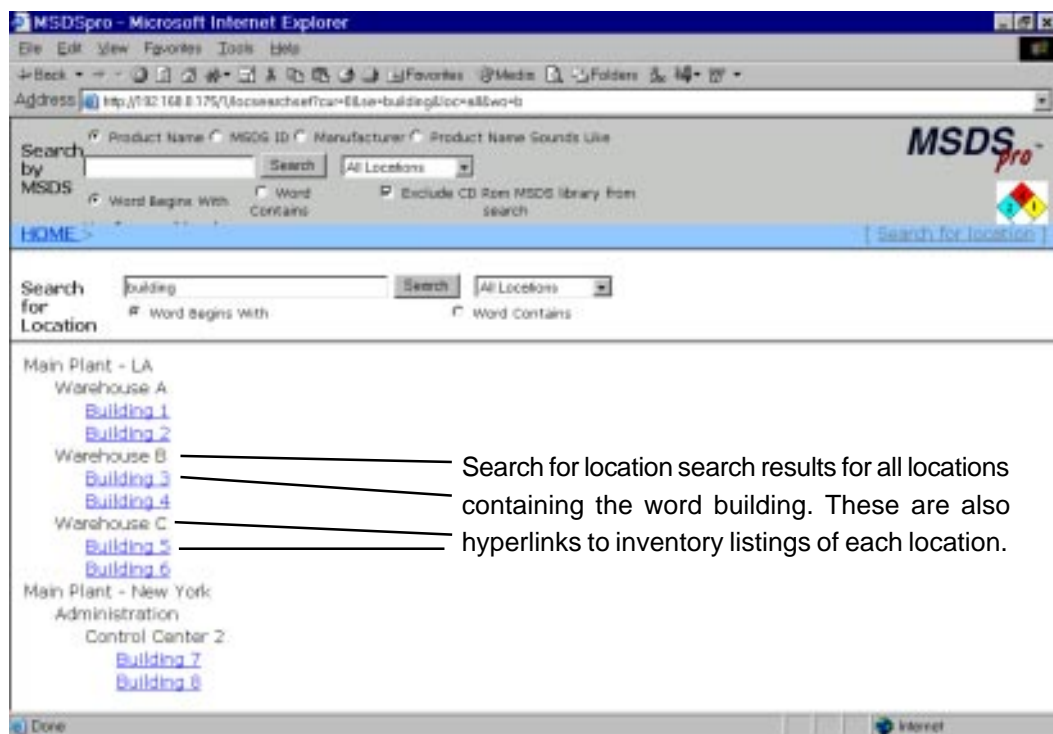
**Search Results Area:** The Search Results Area displays information matching the word or words originally searched upon. Search results are displayed in five columns; Summary/Hazard, Product Name, Manufacturer, Date, and Locations.

- **Summary/Hazard column:** The Summary/Hazard column hyperlinks to the product summary and hazard summary pages. The product summary lists the Product Name, MSDS ID, Manufacturer Name, Emergency Phone Number and NFPA rating. It also contains a hyperlink to descriptions of the NFPA ratings. The hazard summary page lists the Product Name, MSDS ID, Manufacturer Name, Synonyms, and Emergency contacts. The Hazard Summary also lists HMIS and NFPA ratings, the inventory locations for the product and safety related information for the product including necessary Personal Protective Equipment, Routes of Entry and the Physical and Health Hazards of the product. The Product and Hazard Summary pages are on pp. 8-18 and 8-19.

## Location Drilldown Interface (Cont'd)

- **Product Name column:** The Product Name column lists the name of the product. The product name is also a hyperlink to the MSDS for the product.
- **Manufacturer column:** The Manufacturer column lists the name of the manufacturer of the product.
- **Date column:** The Date column lists the date on which the product was last revised. This date is found on the Product Dates tab within the Product record.
- **Locations column:** The Locations column contains a hyperlink which jumps the web interface to a page listing all the locations where the product is stored as inventory.

**Current Location Bar:** The current location bar shows which location, if any, is currently having its inventory or sublocations displayed. If the search results displayed are not part of a location's inventory, then the current location bar displays only "HOME>". In the figure on Page 8-10, the inventory of location "Building 1" is currently being displayed. The location bar also provides hyperlinks to the parent location. The parent location is the location within which the current location exists. In the graphic on pg 8-10, clicking on the location "Warehouse A" in the Location Bar will display the inventory of that location. The Current Location Bar also contains the "Search for Location" hyperlink.



**Search for Location Hyperlink:** The search for location hyperlink searches for locations matching the search string. Clicking on the Search for Location hyperlink loads the Search for Location area into the web interface. Search Methods included in the Search for Location area include Word Begins With/Word Contains and All Locations/All Child Locations. In the above graphic the location "Building" has been searched for and the matching search results are displayed as hyperlinks.

## Location Drilldown Interface (Cont'd)

**Advanced Search**

| Field                    | Criteria   |
|--------------------------|--|
| Product Name             | <input type="text"/> <input checked="" type="radio"/> Word Begins With <input type="radio"/> Word Contains |
| Product Name Sounds Like | <input type="text"/> <input checked="" type="radio"/> Word Begins With <input type="radio"/> Word Contains |
| Manufacturer Name        | <input type="text"/> <input checked="" type="radio"/> Word Begins With <input type="radio"/> Word Contains |
| MSDS ID                  | <input type="text"/> <input checked="" type="radio"/> Word Begins With <input type="radio"/> Word Contains |
| Location Name            | <input type="text"/> <input checked="" type="radio"/> Word Begins With <input type="radio"/> Word Contains |

☒ All Conditions ☐ Any Conditions  
☒ Exclude CD Rom MSDS library from search

[Advanced Search Instructions](#)

1. Select 1-5 fields to search on.
2. Enter the search criteria for each field you wish to search.
3. Select if you want the search to include results that match all of your criteria or any of the criteria.

**Location Drilldown Interface Advanced Search:** The Location Drilldown Advanced Search feature allows the user to search multiple product record fields simultaneously. The Location Drilldown Advanced Search consists of the search fields and the search parameters. The search fields include:

- **Product Name:** The product as named in the Product record.
- **Product Name Sounds Like:** Product names that sound similar to the search string.
- **Manufacturer Name:** The manufacturer as named in the Product and Manufacturer records.
- **MSDS ID:** The identification number assigned to a product when a new product record is created. The MSDS ID is located on the *Product* tab within the Product record.

## Location Drilldown Interface Advanced Search (Cont'd)

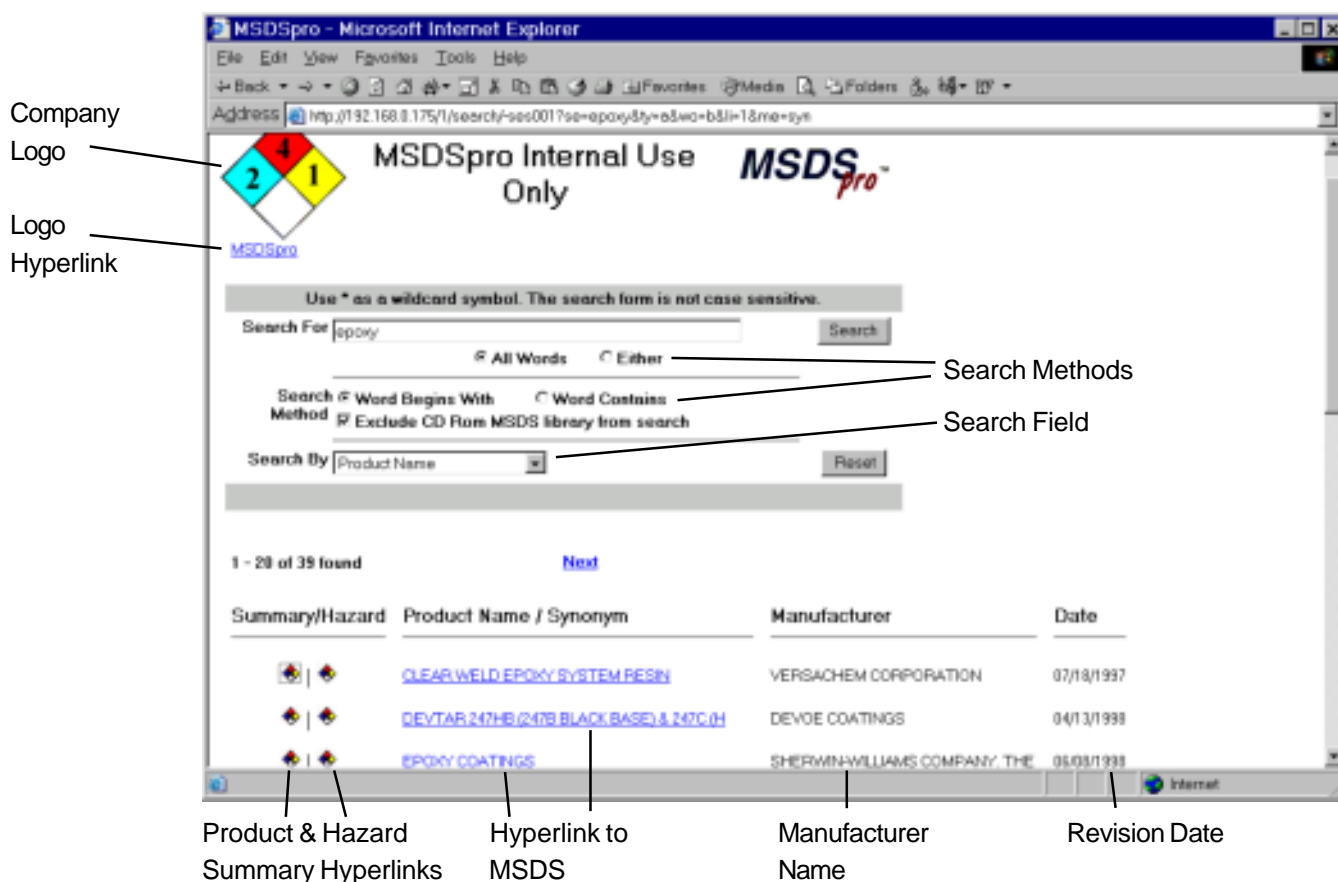
- **Location Name:** The name assigned to a inventory location created in MSDSpro.
- **Internal Number:** A number created by the company that has purchased MSDSpro and assigned to a specific product for the purpose of tracking product inventory. Entering the Internal Number into MSDSpro is covered on pp. 4-33.
- **Manufacturing Number:** A number created by the Manufacturer of the product. Entering the Manufacturer number is covered on pp. 4-33.
- **Ingredient Name:** The name of a chemical that comprises a portion of a product.
- **CAS Number:** A number assigned to a chemical by the Chemical Abstracts Service.

**Search Method Parameters:** The Search Method parameters define how searching will occur. They are:

- **All Conditions/Any Conditions:** Determines whether information in the database will have to match all of the criteria or any one criteria entered in the advanced search fields.
- **Exclude/Include CD-ROM MSDS library:** Controls whether or not the MSDSpro CD Library will be included in the search.

## Classic Interface:

The Classic Interface is a simplified interface that allows the end user to search for MSDSs using a wider variety of search criteria than does the Location Drilldown Interface. The Classic Interface consists of the Search Area and the Search Results Area.



**Search Area:** The search area is the top portion of the Classic Interface. In the search area, the search criteria and the parameters of the search are entered. The Search Area contains the Search Criteria, the Search field, the Search Method parameters, the Web Logo and the Logo Hyperlink.

**Search Criteria:** The Search Criteria is where the words to search for are entered.

**Search Method parameters:** The Search Method parameters define how searching will occur. They are:

- **Word Begins With/Word Contains:** The search method “Word Contains” finds only those records in the database or library that contain the search criteria. Word Begins With finds only those records that begin with the search string.
- **All words/Either Word:** Controls if MSDSpro will search for all of the words or any of the words in the search string.
- **Exclude/Include CD-ROM MSDS library:** Controls whether or not the MSDSpro CD Library will be included in the search.

## Classic Interface (Cont'd)

**Search field:** The Search field selects which field will be searched. Performing a search with “Product Name” selected will return matches only to entries made in the Product Name field within the product record. Search Criteria include:

- **Product Name:** The product as named in the Product record.
- **MSDS ID:** The identification number assigned to a product when a new product record is created. The MSDS ID is located on the *Product tab* within the Product record.
- **Manufacturer Name:** The manufacturer as named in the Product and Manufacturer records.
- **Product Name Sounds Like:** Product names that sound similar to the search string.
- **Ingredient CAS Number:** A number assigned to a chemical by the Chemical Abstracts Service.
- **Stock Number (Internal):** A number created by the company that has purchased MSDSpro and assigned to a specific product for the purpose of tracking product inventory.
- **Stock Number (Mfg.):** A number created by the manufacturer of the product.
- **Ingredient Name:** The name of a chemical that comprises a portion of a product.

**Web Logo:** In the Classic Interface, the web logo is much more prominently displayed than it is in the Location Drilldown Interface. The web logo is added to the web interface from the **Company Interface** tab under the *Administrative Preferences Entry form*. It is usually the logo of the company that has purchased MSDSpro. The web logo is also a hyperlink. The web logo and the Internet address (URL) to which the web logo links to are set in the Web Server Control Panel. The Web Server Control Panel is covered on pp. 8-2 through 8-8.

**Logo Hyperlink:** The logo hyperlink is located below the web logo. It provides additional information about the website to which the logo links. In the graphic on the preceding page, the logo hyperlink is the word “MSDSpro”. It tells the user of the web interface that the company logo is hyperlinked to the MSDSpro website, [www.MSDSpro.com](http://www.MSDSpro.com).

**Search Results Area:** The Search Results Area displays information matching the word or words originally searched upon. Search results are displayed in five columns; Summary/Hazard, Product Name, Manufacturer, Date, and Locations.

- **Summary/Hazard column:** The Summary/Hazard column contains hyperlinks to the product summary and hazard summary pages. The product and hazard summary pages are described on pp 8-17 & pp. 8-18.
- **Product Name column:** The Product Name column lists the name of the product. The product name listed in the Product Name column is also a hyperlink to the product’s MSDS.
- **Manufacturer column:** The Manufacturer column lists the product’s manufacturer name.

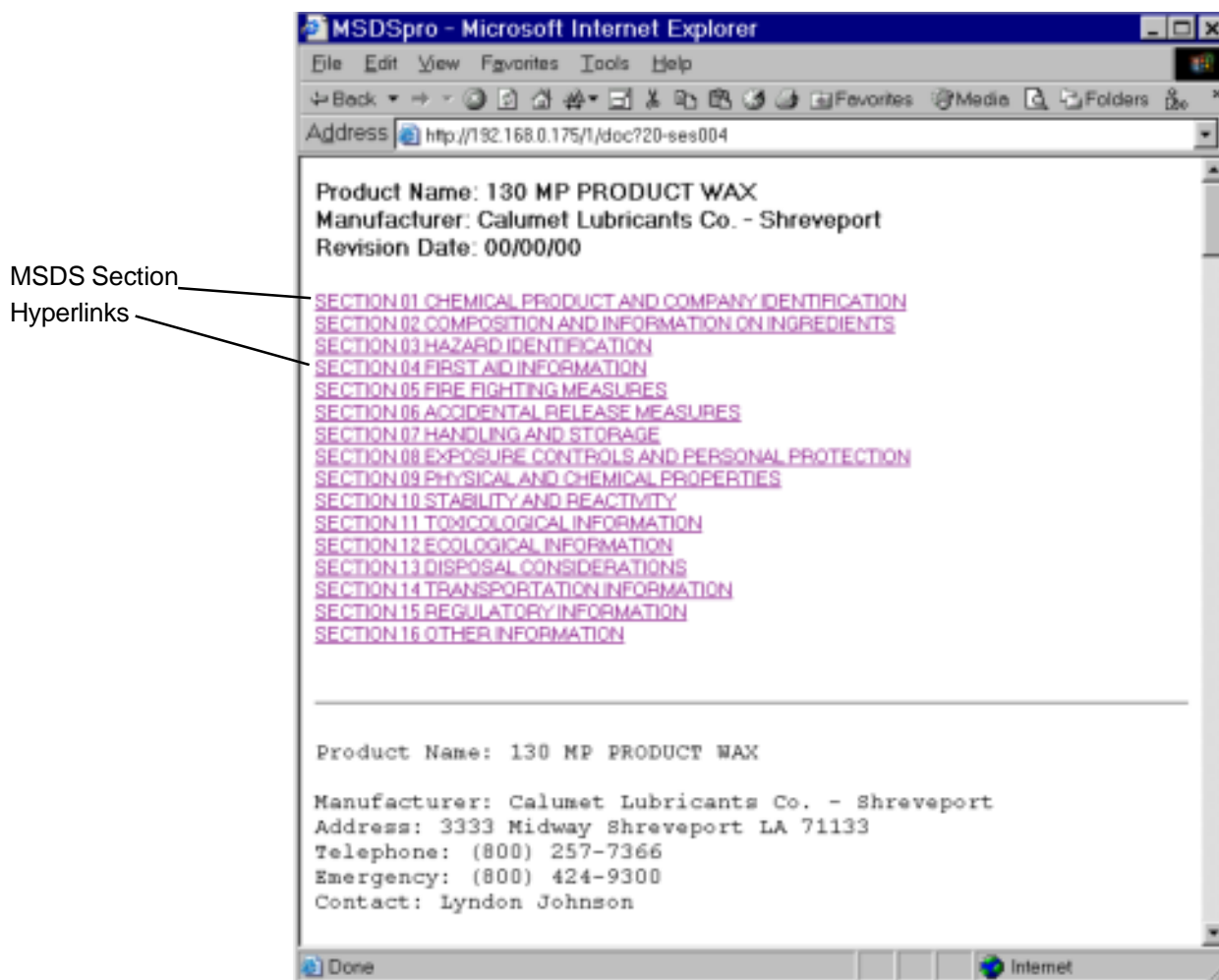
### Classic Interface (Cont'd)

- **Date column:** The date column lists the date on which the product was last revised.

This date is found on the *Product Dates* tab within the product record.

## MSDS Document Page

The MSDS document is viewed by clicking the Product Name link in the Search Results area. In most cases, the MSDS will be viewable via the web browser. In other instances, the web interface will launch a separate application to display the MSDS. MSDSs in ANSI text format will have hyperlinks that allow the user to jump to an individual section within the MSDS. The MSDS shown in the graphic below is in ANSI text format and the hyperlinks are clearly marked.

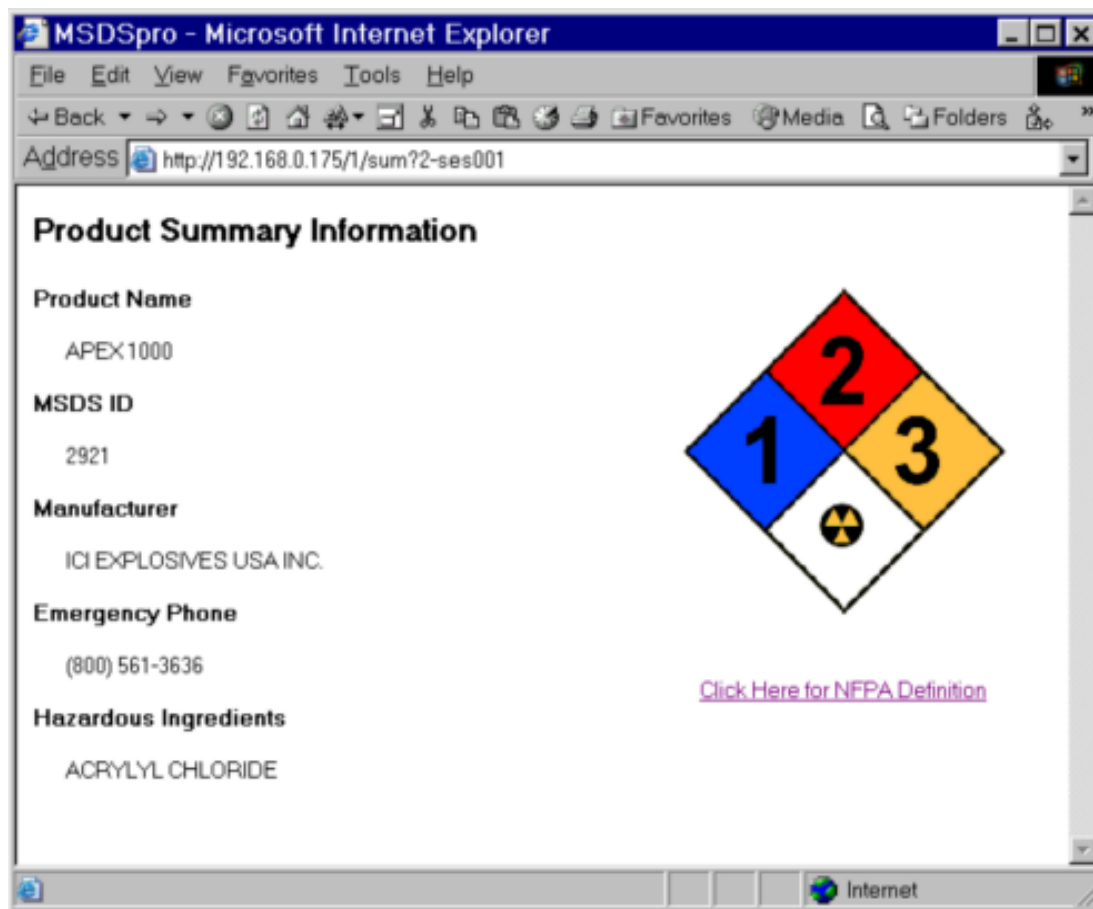




## Product Summary Page

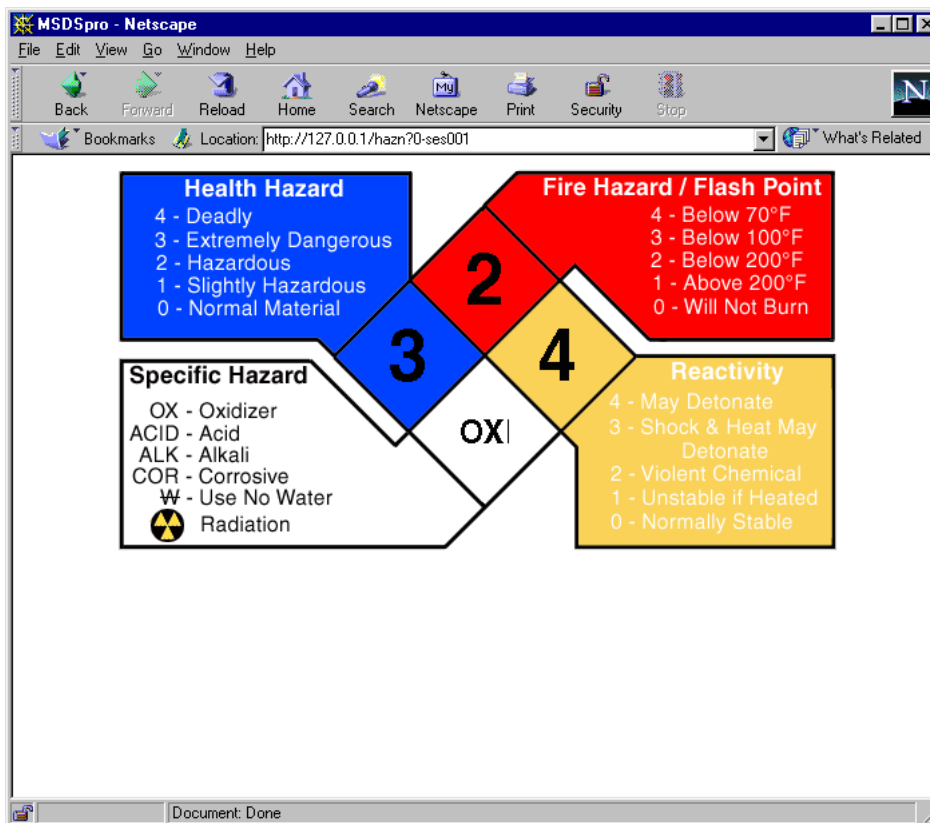
The Product Summary Page is retrieved by clicking the Product Summary hyperlink in the Search Results area. Click the browser's "Back" button to return to the main page. The Product Summary Page displays the following:

- **Product Name**
- **Manufacturer Name**
- **Manufacturer Emergency Phone, or if not listed, Manufacturer Phone**
- **Any listed hazardous ingredients, or if the Product is hazardous, all ingredients**
- **NFPA or HMIS rating for the product**



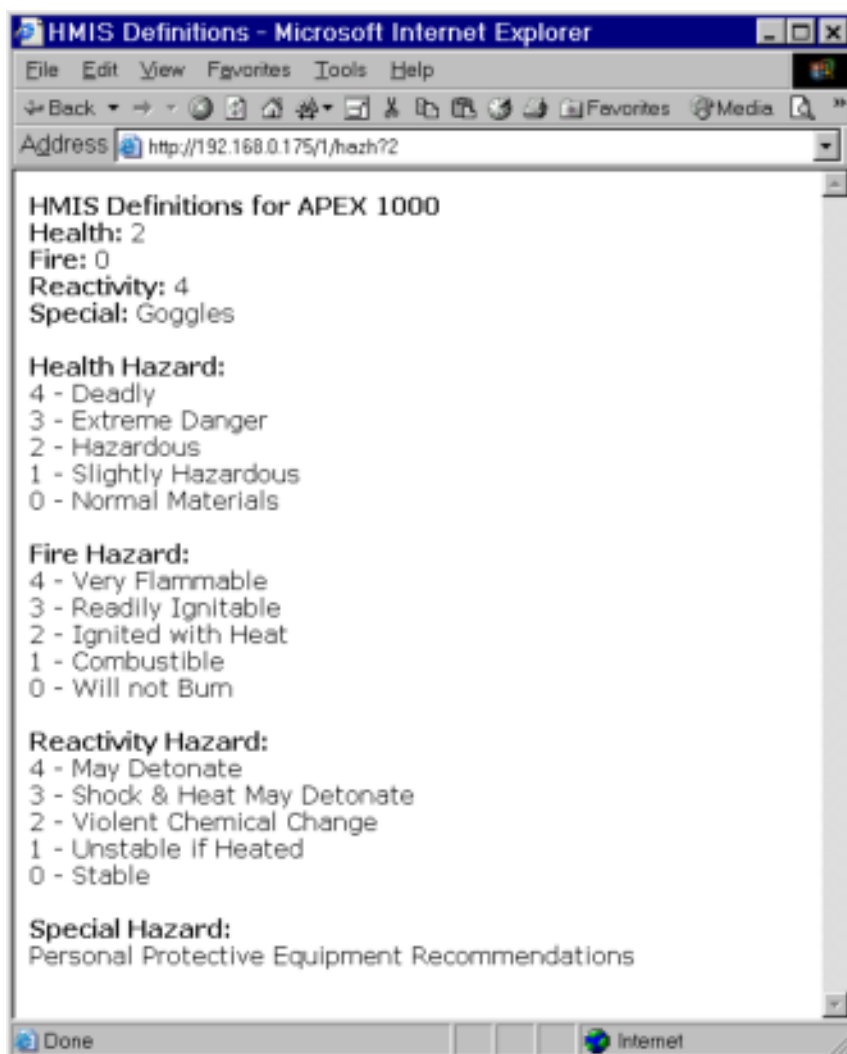
## NFPA Definition Page

The NFPA Definition is retrieved by clicking the NFPA Definition link from the Product or Hazard Summary pages. The hazard rating is based on National Fire Protection Association (NFPA) rating. Click the browser's "Back" button to return to the Product or Hazard Summary page.



## HMIS Definition Page

The HMIS Definition is retrieved by clicking the HMIS Definition link from the Hazard Summary page. The hazard rating is based on Hazardous Materials Information System (HMIS) rating. Click the browser's "Back" button to return to the Hazard Summary page.



## Hazard Summary Page

The Hazard Summary Page is retrieved by clicking the Hazard Summary hyperlink in the Search Results area. Click the browser's "Back" button to return to the main page. The Hazard Summary Page displays the following:

- Product Name
- MSDS ID
- Manufacturer Name
- Synonyms
- Target Organs
- Routes of Entry
- Personal Protective Equipment (PPE)
- Manufacturer Emergency Phone
- Health Hazards
- Physical Hazards
- HMIS Rating
- NFPA Rating

**Product Hazard Summary**

Product Name: APEX 1000  
 Manufacturer Name: ICI EXPLOSIVES USA INC.  
 Synonyms: dynamite

MSDS ID: 2921

Locations: Not provided on this Summary

Emergency Phone: (800) 561-3636

**NFPA Rating:** 1 (Blue), 2 (Red), 3 (Yellow), 0 (White)

**Hyperlink to NFPA Definition:** [Click Here for NFPA Definition](#)

**HMIS Rating:**

|            |         |
|------------|---------|
| HEALTH     | 2       |
| FIRE       | 0       |
| REACTIVITY | 4       |
| SPECIAL    | GOGGLES |

**Hyperlink to HMIS Definition:** [Click Here for HMIS Definition](#)

**PPE:**

☒ Gloves ☐ Goggles ☐ Apron  
☐ Face Shield ☐ Respirator

**Routes of Entry:**

☒ Inhalation ☐ Skin Or Eye Contact  
☐ Ingestion ☒ Skin Absorption

**Target Organs:**

☐ Lungs ☒ Central Nervous System  
☐ Heart ☐ Cardiovascular System  
☒ Kidney ☐ Mucous Membranes  
☐ Eyes ☐ Autonomic Nervous System  
☐ Skin ☐ Respiratory System  
☐ Prostrate ☒ Blood  
☐ Blood ☐ Mutagen  
☐ Liver ☐ Teratogen

**Physical Hazards:**

☐ No Physical Hazard ☐ Explosive  
☒ Combustible Liquid ☐ Pyrophoric  
☐ Compressed Gas ☐ Organic Peroxide  
☐ Oxidizer ☒ Water Reactive

**Health Hazards:**

☐ No Hazard ☐ Corrosive  
☒ Toxic ☐ Sensitizer  
☐ Highly Toxic ☐ Carcinogen  
☐ Reproductive Toxin ☐ Acute

# MSDSpro Enterprise Integrated Backup

## Overview

To keep your data safe, you should guard against hardware-related breakdowns and human error. 4D Backup protects MSDSpro Enterprise data by enabling you to make backup copies of your database. You can choose from several backup methods, from creating a simple backup on disks to managing a logfile for your database that serves as a complete transaction repository.

This manual explains how to use 4D Backup to protect your MSDSpro Enterprise data by enabling you to make backup copies of your database. We recommend reviewing the risks to your data and determine how 4D Backup fits your needs. You should then install 4D Backup and implement the backup method that works best for your situation.

An information system — as sophisticated as it is — is only a simulation machine. As a machine, it presents certain risks of breakdown intrinsic to all mechanical objects. People are also subject to error. They can delete the wrong record, update a series of records using the wrong formula, and so on. To keep your data safe, you should guard against hardware-related breakdowns and human error. The best ways of guarding against such risks are prevention and planning. 4D Backup provides this protection by allowing you to make backup copies of MSDSpro Enterprise.

4D Backup is installed as a plug-in in MSDSpro 4D Server's [Win4DX](#) folder. Installation is described in detail in the section *Installation of 4D Backup*.

To avoid any loss of data, you should keep one or more copies of your data on a different volume or medium from the deployed database.

## Backup Choices

When choosing a backup strategy, consider the relative safety of:

- **The backup method**
- **The location in which the backup will be stored**
- **The type of storage unit used for the backup**

## Backup Location

The location in which you save backups also affects the safety of your backup system:

## Backup Location (cont'd)

| <u>Backup Location</u>   | <u>Resulting Protection</u>  |
|--|--|
| <i>Hard disk containing original database</i>                                  | Reduces risks associated with the data file, but not those associated with the hard disk.  |
| <i>Different hard disk connected to same machine</i>                           | Reduces risks associated with the hard disk, but not those associated with the machine. A problem with the machine could cause damage to the disks connected to the machine. |
| <i>Hard disk connected to another machine but located in the same building</i> | Increases level of protection. However, if a disaster occurs within the building (a fire, for instance), you may still lose your data.                                       |

## Choice of Storage Units

When deciding on a backup strategy, the choice of storage units must be taken into account. Each one has its advantages and disadvantages. The choice of storage units also depends on whether you are creating archives or backups.

## Archives

Archives consist of information kept for historical purposes. In general, archives are rarely consulted. Thus, the time required to access the archives is not crucial. If you want to verify some inventory information from three years ago, you can tolerate the few minutes it takes to restore the database from a set of disks. Archiving is often done on a monthly, semi-annual or annual basis. Because archiving is performed less frequently than backups, you can store archives on disks or magnetic tapes that can be placed in a cabinet or other container.

The following table describes the advantages and disadvantages of storage solutions for archives:

| <u>Storage Type</u>                                  | <u>Disadvantages</u>   | <u>Advantages</u>  |
|--|--|--|
| <i>Floppy disks</i>                                  | Deteriorate over time.<br>Small storage capacity.<br>Writing to disks is slow. | Economical.  |
| <i>Magnetic tape</i>                                 | Slow data access.<br>Additional cost of magnetic tape drive.                   | Reliable.<br>Economical.<br>Large storage capacity.                      |
| <i>Removable disks (Zip, Jaz or magneto-optical)</i> | High cost.   | Reliable and efficient.<br>Large storage capacity.<br>Rapid data access. |

## Backups

Backups consist of information kept to restore a database currently in use. If 30 people depend on MSDSpro to do their work, the time required to access backups can be crucial.

The following table discusses advantages and disadvantages of storage solutions for backups.

| <u>Storage Type</u>                                   | <u>Disadvantages</u>  | <u>Advantages</u>   |
|---|---|---|
| <b><i>Hard disks</i></b>                              | Machine problems can damage connected disks.                | Maximum backup and restoration speed.<br>Reliability.<br>Best solution for storing log files.   |
| <b><i>Shared volumes</i></b>                          | Subject to network problems.<br>Network backups are slower. | Physically distant from machine in use.<br>Good solution for periodic backups.  |
| <b><i>Hard disk combined with a shared volume</i></b> | Same as for previous two.                                   | Allows you to increase safety by making frequent backups (for example, once a day) to a local hard disk, and then archiving the database (for example, once a week) to a shared volume. |

## Making Backups Easy to Use

You should create your backup system so that it requires the least amount of work from the user or administrator—the ideal being no work at all.

In general, you should:

- **Avoid situations in which the backup parameters often change**

Be sure to choose a backup volume large enough to store the specified number of sets of backups.

- **Make resetting the parameters easy**

For databases that are likely to change, we recommend that you use backup projects to save your parameters. For maximum ease of use, backups should be automatic, but the administrator should be able to change the settings as needed.

### Avoiding Hardware Problems

Once you have ensured the logical safety of your data using the methods described, you must consider the physical safety of your data. To do so, you should analyze the material portion of your information system in terms of reliability.

### The Maintenance of Computers

Computers require a minimum of precautions to function well. With computers, you should guard against excess dust and magnetic fields that can harm the computer and, more particularly, its hard disk. Also, make sure that the hard disk is not subject to excessive vibrations, particularly while it is writing. For example, avoid placing a printer, which generates vibrations, on the same table as the hard disk.

### Lifespan of the Storage Unit

To avoid problems, you should decide on a maximum lifespan for your storage units (floppy disks, cartridges, etc.) and change them regularly. The lifespan of your storage units depends on a several factors:

- **The nature of the storage unit (for example, a DAT tape or Jaz cartridge)**
- **The quality of the storage unit**
- **The frequency of the backups**
- **The quality of the drive**

As with hard disks, avoid the influence of magnetic fields. Storing disks near monitors, which generate magnetic fields, can cause progressive erasure of the disks.

### Uninterruptable Power Supply

If possible, you should use a device that provides an uninterruptable power supply (UPS) to your computers. UPS devices regulate the electrical current going to your computer. To guard against power outages, UPS devices contain a battery capable of maintaining the electrical current for several minutes. In case of a sudden power outage, the battery power gives you enough time to properly shut down the system. In this way, clients of a 4D Server database can disconnect and the server can shut down normally, without the risk of losing data in the cache or damaging the data file or hard disk.

If you cannot use UPS devices for all computers, try to use them for at least the server machine.



## Quality of the Network

4D Server and 4D Client are connected through the network. To avoid disturbance of backups by problems with the network, you need to take particular care with this element of the system.

The ideal solution is a high performance network planned and installed by network specialists.

The use of routers and bridges that separate the network into distinct segments can be used to limit the effects of an incident. Only one segment is affected by a problem and the cause of the problem is that much easier to find.

## Testing the Restoration Plan

A backup strategy must be accompanied by a strategy for recovering the system in case of an incident. How can the database be restored in the quickest and most reliable way?

To answer this question, you should formulate a plan of action. This plan should be tested multiple times by the administrator who will be performing the backups. For each test, the administrator should simulate an incident (for example, simulating the deletion of the database) and follow the plan for restoring the database.

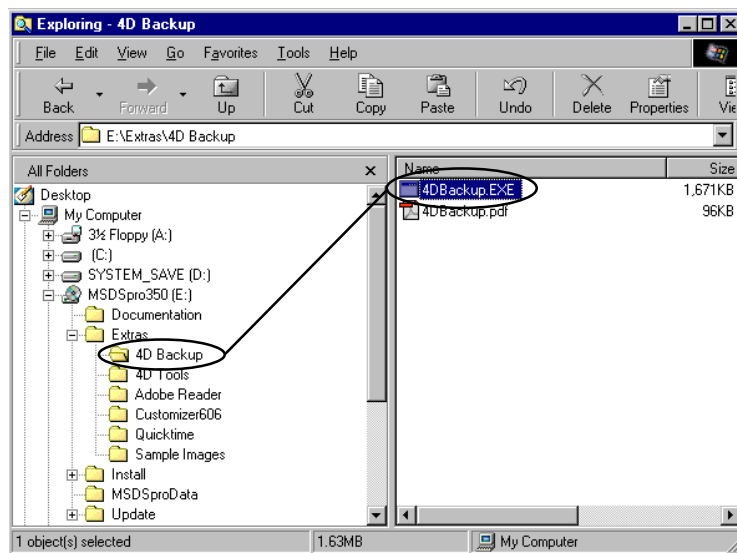
The tests should be verified for effectiveness and timed to check if the database can be quickly recovered.

## Installation of 4D Backup in MSDSpro Enterprise

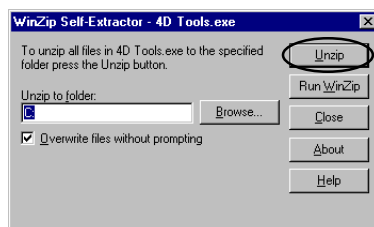
First, MSDSpro 4D Server needs to be installed. Please refer to the section *Installation of MSDSpro 4D Server*.

To install 4D Backup in MSDSpro Enterprise, follow these steps:

1. Shut down MSDSpro 4D Server
2. Insert the blue MSDSpro CD into your CD-ROM drive, as shown below in Explorer
3. Locate the `\Extras\4D Backup` folder
4. Double-click the `4DBackup.exe` self-extracting file



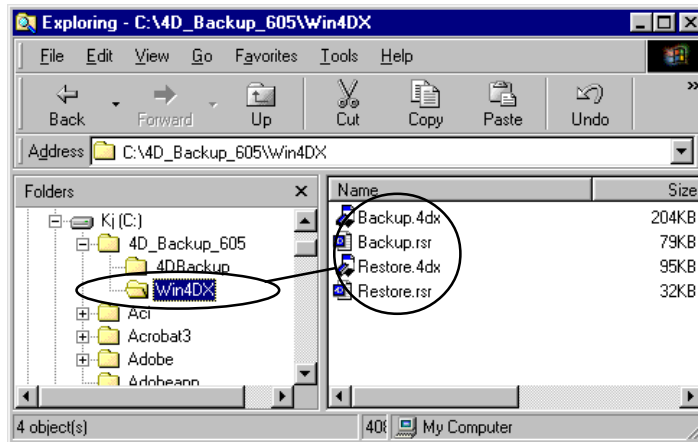
5. Verify the default installation hard disk volume
6. Click the UNZIP button



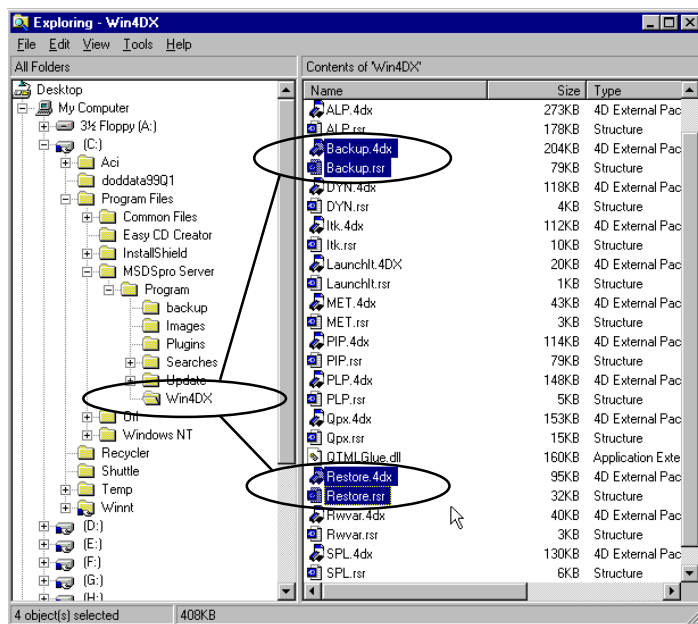
7. After file extraction is complete, click the OK button
8. Click the CLOSE button to close the self-extracting archive

**9. Locate the 4 files within the new *C:\4D\_Backup\_605\Win4DX* folder**

The other folder (“4DBackup”) contains the application files used to restore from a backup.



**10. Move these 4 files into the installed MSDSpro 4D Server Win4DX folder**



**11. Launch MSDSpro 4D Server**

After launching MSDSpro 4D Server, you can configure 4D Backup to provide backup services. See *Configuring 4D Backup* in this section for configuration information.

## Configuring 4D Backup

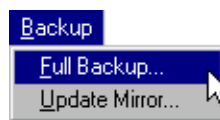
After installation of the 4D Backup files and launching MSDSpro 4D Server, 4D Backup must be configured to provide backup services.

For the purposes of this guide, we will configure 4D Backup onto a fixed Hard Disk with 3 Backup Sets and a transaction Log File to store transactions.

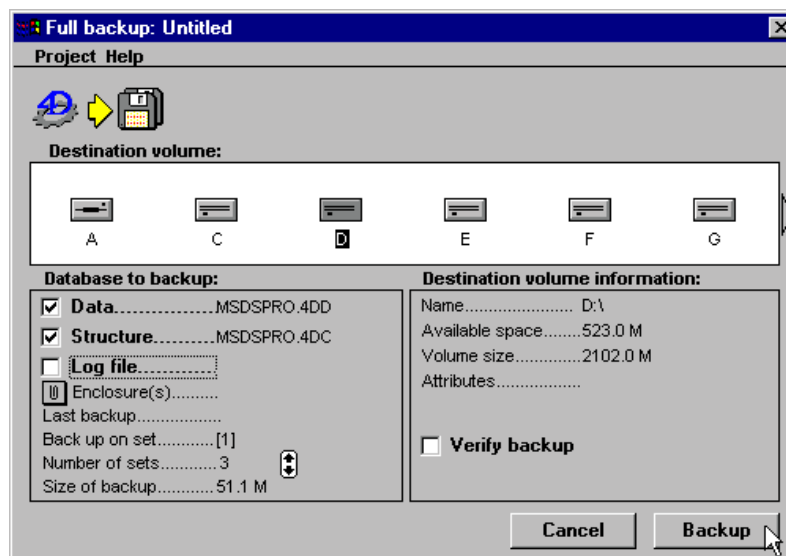
### Perform a Full Backup

First, we must perform a full backup of the system.

1. Select **Full Backup...** from the **Backup** menu



2. Select the Destination Volume by clicking on the Hard Disk icon



3. **Verify that the Destination Volume will have enough free space available to perform the backup**

4. **Verify the Number of Sets of Backups to keep before overwriting occurs**

The default is 3 Backup sets. You can create more or fewer backup sets as needed.

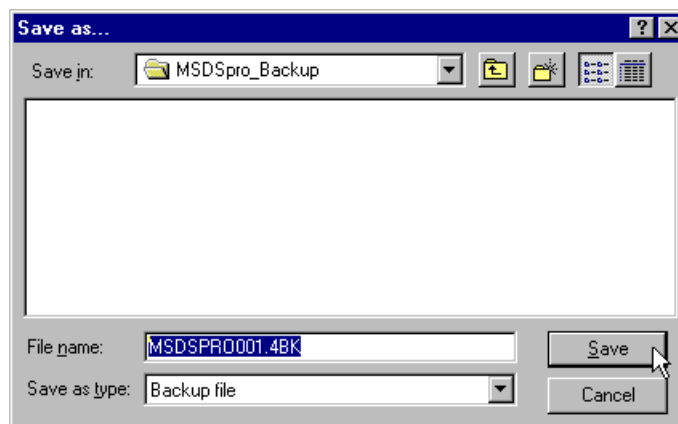
5. **Select whether 4D Backup should verify the backup when finished**

Selecting to verify the backup will take more time to complete.

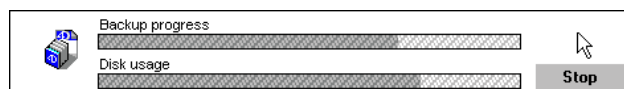
6. **Click the BACKUP button**

7. **Save the backup file to a folder on the Destination Volume that should contain all backup sets**

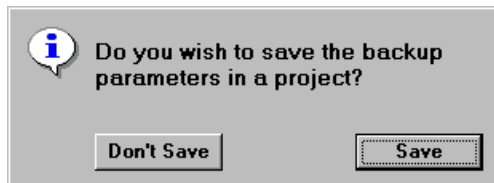
This folder should contain all backup sets. The first backup set is named MSDSPRO001.4BK. Subsequent backup sets will be renamed incrementally.



8. **The Backup Progress thermometer will appear**



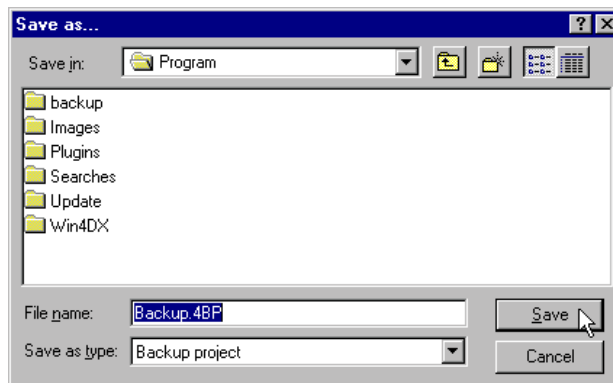
9. After the backup is complete, save the backup parameters as a project



10. Click the **SAVE** button

11. **Save the Backup Project file**

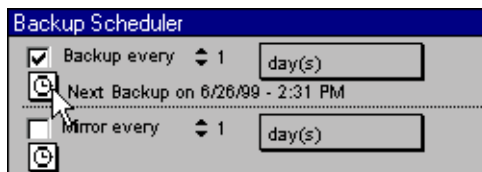
Save the file as Backup.4BP within the MSDSpro Server Program folder.



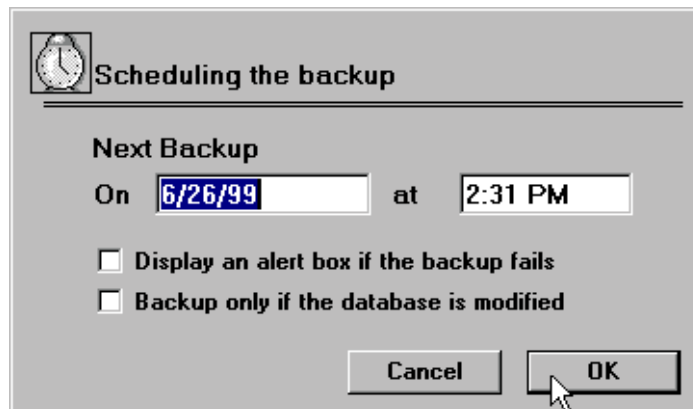
## Configure the Backup Scheduler

The Backup Scheduler is used to specify when automatic backups should occur. These settings may be modified at any time.

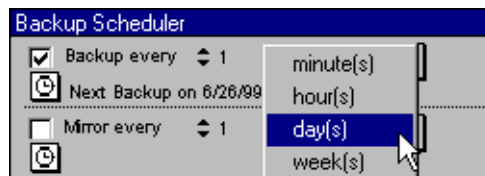
1. **Select the Backup Every checkbox**
2. **Click the watch icon to configure settings**



3. Specify the next date and time 4D Backup should automatically execute



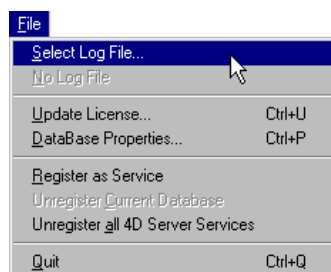
4. Click the OK button
5. Select the interval which regular backups should occur



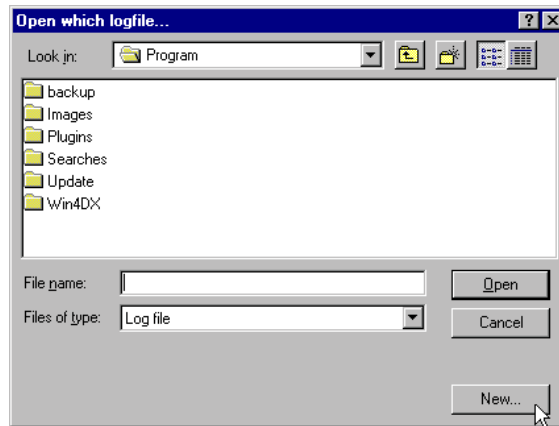
## Select a Log File

The Log File is used to capture incremental changes to the database between the full backups which occur on a regular basis. The Log File can be used to recover records that have been added, modified, or even deleted since the last full backup has occurred.

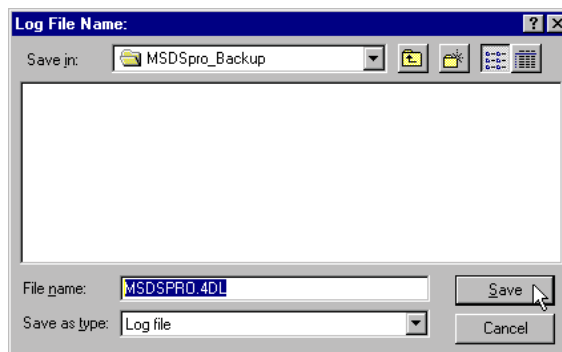
1. Select the **Select Log File...** menu item from the **File menu**



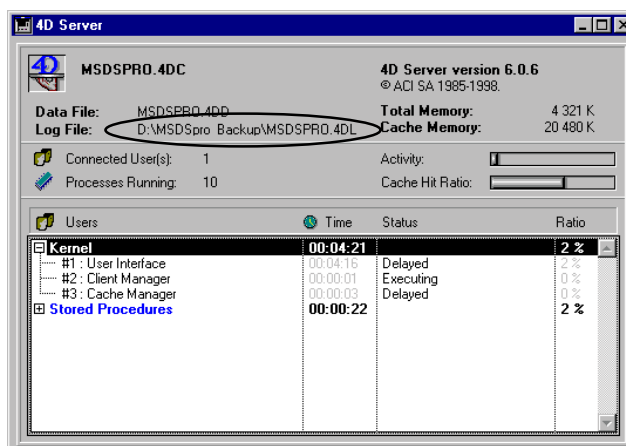
2. Click the NEW button to create a new Log File



3. Save the new Log File in a separate location, such as the main backup folder previously created for the Backup sets



4. The 4D Server main window now shows the location of the Log File





## Additional Information

In summary, this section has:

- **Provided information to decide on an effective backup strategy**
- **Shown how to install 4D Backup into the MSDSpro 4D Server**
- **Shown how to perform a full backup and create multiple backup sets**
- **Shown how to schedule regular backups**
- **Shown how to create a log file to store incremental information between backups**

However, this guide contains excerpts from the full 4D Backup guide, which is provided as an all-inclusive reference for 4D Backup installation, usage, and restoration techniques. MSDSpro will provide the full 4D Backup guide to you upon request.

Please contact MSDSpro as discussed in the section *Contacting MSDSpro* to request the full 4D Backup guide.

# Compacting and Restoring the Database

## Overview

Periodically it may become necessary to run a data compression or data recovery utility on the MSDSpro data files.

The utility provided for these tasks is called 4D Tools, and is provided on the MSDSpro installation CD-ROM or web site.

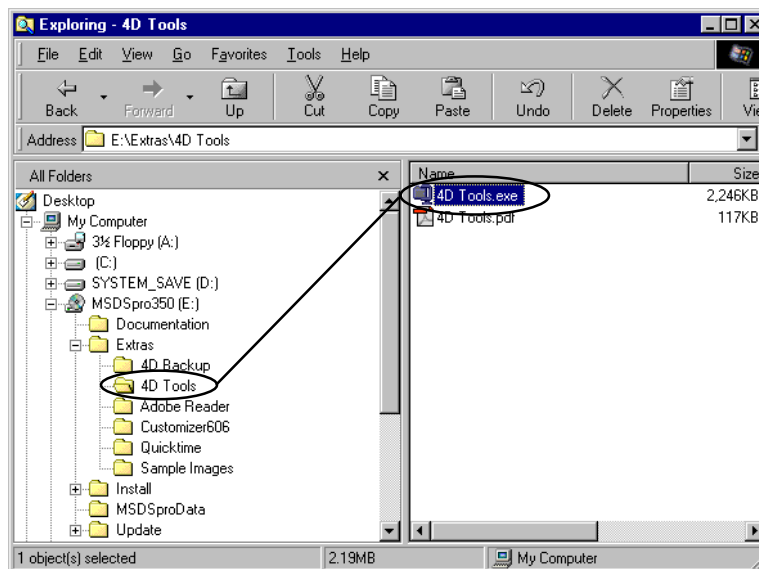
4D Tools can be used to compact the MSDSpro database files, which will remove deleted records and remove unused space which will normally tend to accumulate as the database is used. Compacting the MSDSpro database files is similar to defragmenting a hard disk - MSDSpro will take less space and will operate faster.

4D Tools can also be used to recover data in the unlikely event of a system crash. This will provide the best means of recovery if a reliable backup is not available.

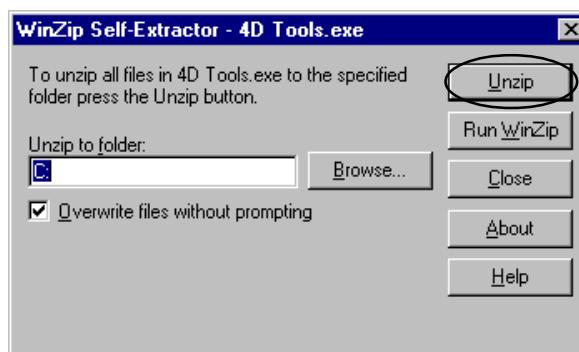
## Installing 4D Tools

To Install 4D Tools, follow these steps:

1. Insert the MSDSpro Installer CD into your CD-ROM drive
2. Locate the `Extras\4D Tools` folder as shown below in Explorer
3. Double-click the `4D Tools.exe` application



4. Verify the default installation hard disk volume
5. Click the UNZIP button



6. After file extraction is complete, click the OK button
7. Click the CLOSE button to close the self-extracting archive

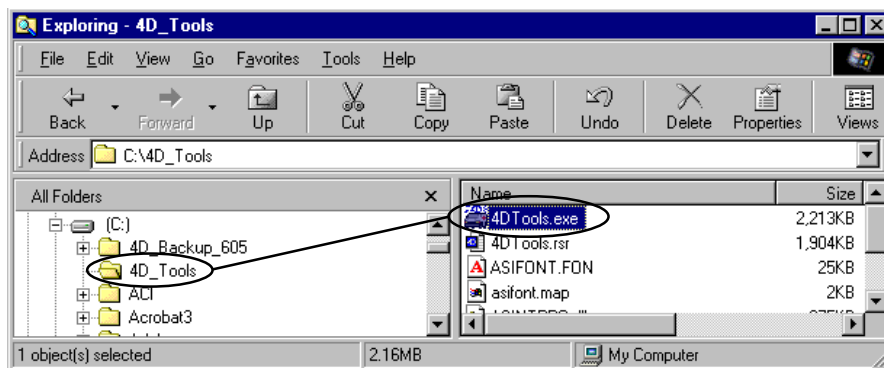
## Compacting MSDSpro Using 4D Tools

**NOTE:** You must shut down the MSDSpro application currently in use. It's recommended that all file extensions are *VISIBLE* and *NOT HIDDEN*. This is accomplished from the Folder Options menu within Windows® Explorer. Select View -> Options/Folder Options -> select Show all files and deselect Hide file extensions for known file types.

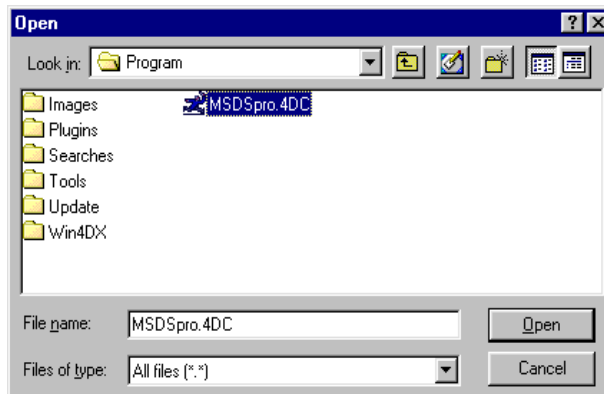
To compact the MSDSpro data files using 4D Tools, follow these steps:

### 1. Launch the 4DTools.exe application

The default installation location is *C:\4D Tools\4DTools.exe*



### 2. Select MSDSpro.4DC from the *Open File* window

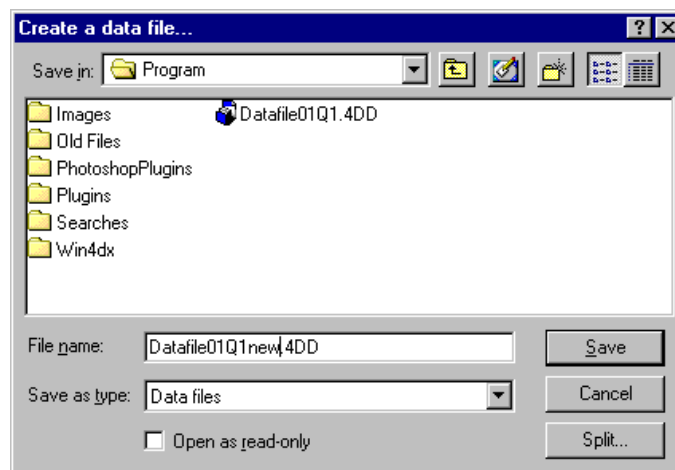


### 3. Click the OPEN button

4. Select **Compact** from the **Utilities** menu

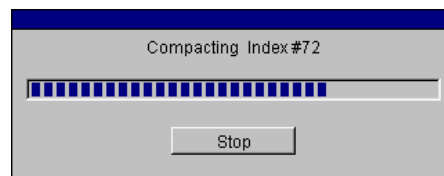


5. Name the new datafile with “new” at the end of the file name



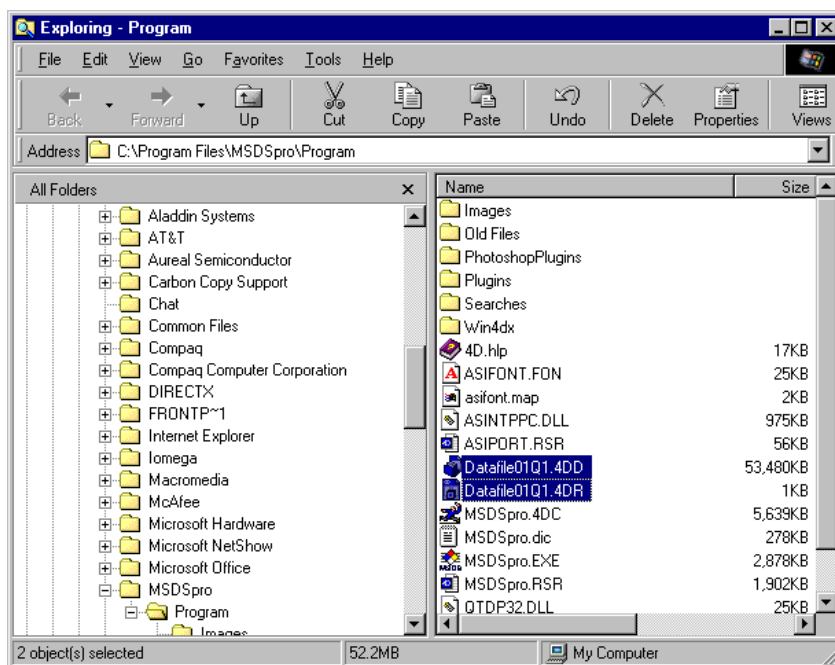
6. Click the **SAVE** button

7. 4D Tools will show the following progress thermometers during processing

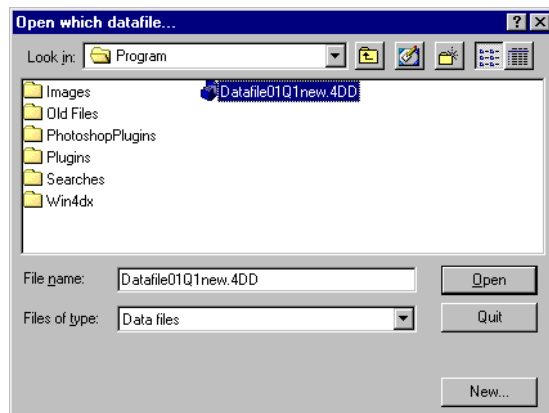


8. After 4D Tools has finished processing, select **Quit** from the **File** menu

9. Locate the old (original) data files
10. Create a new folder called “Old Files” from the *File menu -> New -> Folder*
11. Move the old files into the new “Old Files” folder



12. Launch MSDSpro and immediately hold down the ALT key
13. Select the new compacted datafile when the *Open Datafile* window appears



14. Click the OPEN button

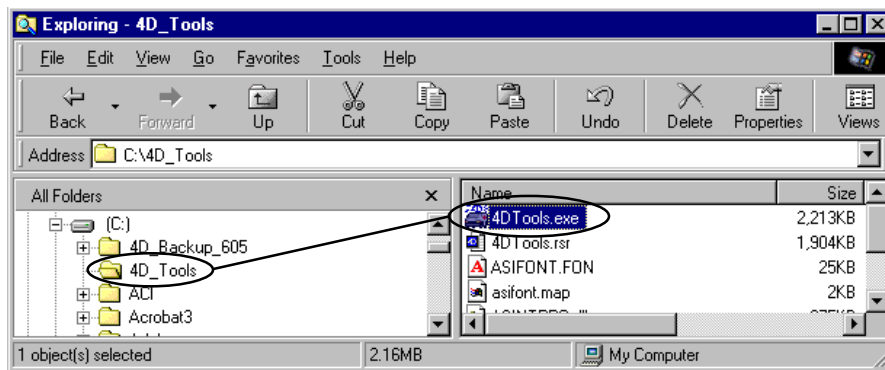
## Recovering MSDSpro Using 4D Tools

**NOTE:** You must shut down the MSDSpro application currently in use. It's recommended that all file extensions are *VISIBLE* and *NOT HIDDEN*. This is accomplished from the Folder Options menu within Windows® Explorer. Select View -> Options/Folder Options -> select Show all files and deselect Hide file extensions for known file types.

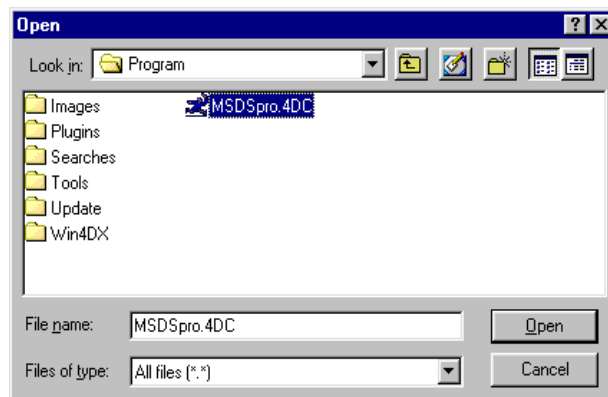
To recover the MSDSpro data files using 4D Tools, follow these steps:

### 1. Launch the 4DTools.exe application

The default installation location is *C:\4D Tools\4DTools.exe*

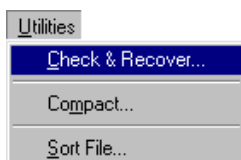


### 2. Select MSDSpro.4DC from the *Open File* window



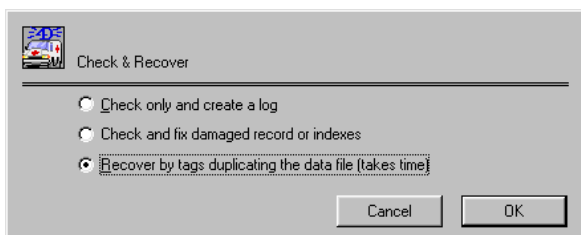
### 3. Click the **OPEN** button

4. Select **Check & Recover** from the **Utilities** menu

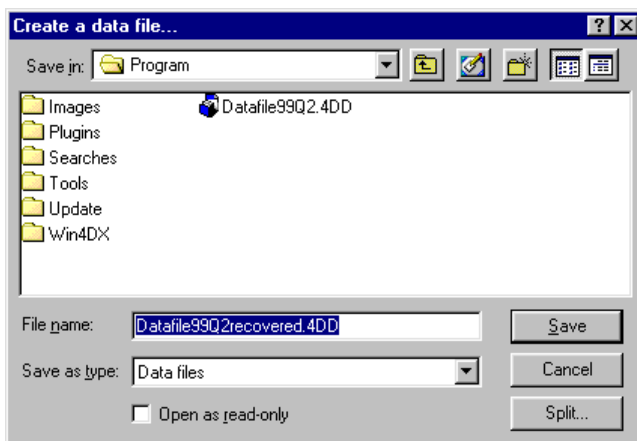


5. Select **Recover by tags duplicating the data file**

6. Click the **OK** button



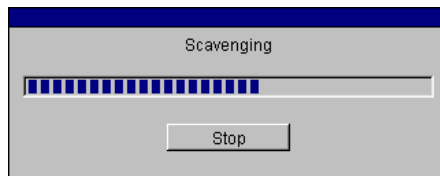
7. Name the new datafile with “**recovered**” at the end of the file name



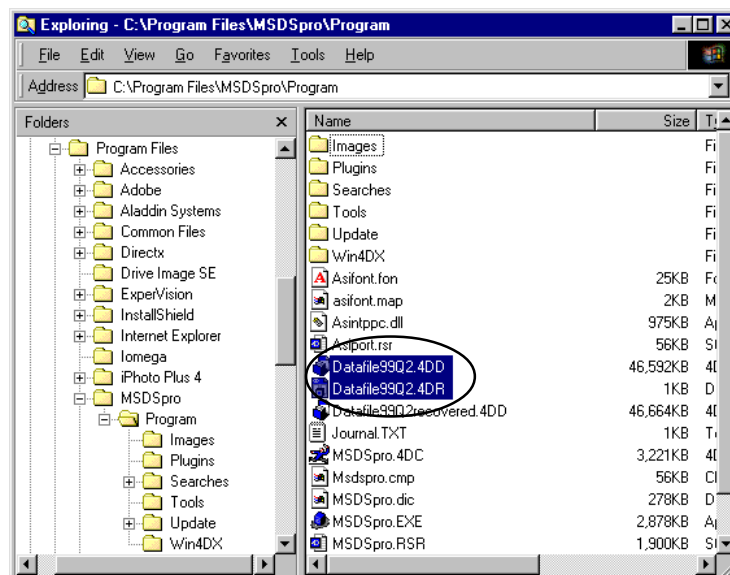
8. Click the **SAVE** button



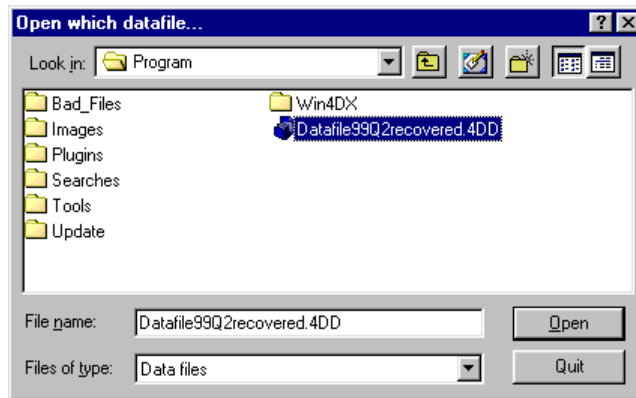
9. 4D Tools will show the following progress thermometers during processing



10. After 4D Tools has finished processing, select *Quit* from the *File menu*
11. Locate the old (original) data files
12. Create a new folder called "Bad Files" from the *File menu* -> *New* -> *Folder*
13. Move the old files into the new "Bad Files" folder



14. Launch MSDSpro and hold down the ALT key at the same time
15. Select the recovered datafile when the *Open Datafile* window appears



16. Click the OPEN button